Appendix O

Environmental Safety

Appendix O-1

Environmental Safety Technical Report

Environmental Safety Technical Report

NBC Universal Evolution Plan

June 2008 (Revised March 2010)

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List of Acronyms

AAS	Ambient Air Samples
AB	Assembly Bill
ACM	Asbestos Containing Materials
AHM	Acutely Hazardous Materials
AMP	Asbestos Management Plan
AOCONCERN	San Gabriel Valley Areas of Concern
AST	Aboveground Storage Tank
APSA	Aboveground Petroleum Storage Act
BEP	Business Emergency Plan
BZP	Border Zone Property
CA Bond Exp. Plan	Bond Expenditure Plan
Cal/OSHA	California Occupational Safety and Health Act, regulations and programs authorized under the Act, and the Division of Occupational Safety and Health
CalARB	California Air Resources Board
CalEPA	California Environmental Protection Agency
CAL-SITES	CalEPA DTSC'S Calsites database
CCR	California Code of Regulations
CDM	Camp Dresser & McKee Inc.
CEQA	California Environmental Quality Act
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CERCLIS	Comprehensive Environmental Response, Compensation, and Liability Information System
CFR	Code of Federal Regulations
CHHSL	California Human Health Screening Level
CHMIRS	California Hazardous Material Incident Report System
CIWMB	California Integrated Waste Management Board
CONSENT	Superfund Consent Decrees
CORRACTS	Corrective Action Report
CORTESE	"Cortese" Hazardous Waste and Substances Sites List
CUPA	Certified Unified Program Agency
CWA	Clean Water Act
Delisted NPL	National Priority List Deletions
DHS	Los Angeles County Department of Health Services
DOD	Department of Defense
DOSH	Division of Occupational Safety and Health
DRYCLEANERS	Cleaner Facilities database
DTSC	Department of Toxic Substances Control
EDR	Environmental Data Resources Inc.
EDR Historical Auto Stations	EDR Proprietary Historic Gas Stations

EDR Historical Cleaners	EDR Proprietary Historic Dry Cleaners
EHS	Extremely Hazardous Substances
EIR	Environmental Impact Report
Emer. Gen.	Emergency Generator
EMI	Emissions Inventory Data
ENVIROSTOR	EnviroStor Database
EPA	U.S. Environmental Protection Agency
ERNS	Emergency Response Notification System
FCC	Federal Communications Commission
FDA	U.S. Food and Drug Administration
FID	Facility Inventory Database
FINDS	Facility Index System/Facility Identification Initiative Program Summary
FUDS	Formerly Used Defense Sites
HAZNET	Hazardous Waste Information System
HAZWOPER	Hazardous Waste Operations and Emergency Response
HCS	Hazard Communication Standard
HIST UST	Hazardous Substance Storage Container Database
HMBP	Hazardous Materials Business Plan
HWCL	Hazardous Waste Control Law
HWP	Hazardous Waste Property
IIPP	Injury and Illness Prevention Program
kg	Kilogram
LACDPW	Los Angeles County Department of Public Works
LACoFD	Los Angeles County Fire Department
LAFCC	Los Angeles River Flood Control Channel
LAFCO	Local Agency Formation Commission
LAFD	Los Angeles Fire Department (City)
LARQWCB	California Regional Water Quality Control Board – Los Angeles Region
LBP	Lead-Based Paint
lbs	Pounds
LN2	Liquid Nitrogen
LUST	Leaking Underground Storage Tank Information System
Manufactured Gas Plants	EDR Proprietary Manufactured Gas Plants Database
MCL	Maximum Contamination Level
mg/kg	Milligram Per Kilogram
MPE	Maximum Permissible Exposure
MSDS	Material Safety Data Sheet
NCP	National Oil and Hazardous Substances Pollution Contingency Plan

NESHAP	National Emission Standards for Hazardous Air Pollutants
NOTIFY 65	Proposition 65 Records Database
NOV	Notice of Violation
NPL	National Priorities list
NTIS	National Technical Information Service
OEI	Federal Office of Emergency Information
OES	State Office of Emergency Services
OET	FCC's Office of Engineering & Technology
OSHA	Occupational Safety and Health Administration
PCBs	Polychlorinated Biphenyls
PRG	Preliminary Remediation Goal
Proposed NPL	Proposed National Priority List Site
Proposition 65	Safe Drinking Water and Toxic Enforcement Act
RCRA	Resource Conservation and Recovery Act
RCRIS	Resource Conservation and Recovery Information System
RESPONSE	State Response Sites
RF	Radio Frequency
RL	Reporting Limit
RMP	Risk Management Plan
RO	Receive-only
ROD	Record of Decision
RWQCB	California Regional Water Quality Control Board
SARA	Superfund Amendments and Reauthorization Act
SB	Senate Bill
SCAQMD	South Coast Air Quality Management District
SIC	Standard Industrial Classification
SPCC	Spill Prevention Control and Countermeasure
SRBP	Subsurface Refuse Boundary Probes
SSL	Soil Screening Level
SVOC	Semi-Volatile Organic Compounds
SWAQAT	Solid Waste Air Quality Assessment Test
SWAT	Solid Waste Assessment Test
SWEEPS	Statewide Environmental Evaluation and Planning System
SWF/LF	Solid Waste Facilities/Landfills
SWIS	Solid Waste Information System
SWRCB	State Water Resources Control Board
TOC	Total Organic Carbon
Toxic Pits	Toxic Pits Cleanup Act Site
TPH-cc	Total Petroleum Hydrocarbons - Carbon Chain
TSCA	Toxic Substances Control Act
TSD	Treat, Storage, Disposal
TSDF	Treatment/Storage/Disposal Facilities
UCS	Universal City Studios

U.S.C.	United States Code
UFC	Uniform Fire Code
U.S.	United States
US ENG CONTROLS	Engineering Controls Sites List
USGS	United States Geologic Survey
UST	Underground Storage Tank
VOC	Volatile Organic Compounds
WIP	Well Investigation Program Case List
WMUDS	Waste Management Unit Database System

Section 1
Introduction

Universal City Studios LLLP, L.P. (the "Applicant"[1]) is proposing the NBC Universal Evolution Plan, a development program that meets the future needs of the existing on-site businesses as well as the establishment of a new residential community that contributes to meeting the future housing needs of the eastern San Fernando Valley. In overview, the NBC Universal Evolution Plan (the "Project"), is a mixed-use development consisting of approximately 2.01 million net square feet of various types of new commercial uses (approximately 2.65 million square feet of new development and demolition of 638,000 square feet of existing uses), plus 2,937 residential units. The Project proposes new development across all of the major types of land uses that occur on, and adjacent to, the Project Site; e.g., amphitheater, entertainment retail, entertainment, studio, studio office, office, and hotel uses, in addition to the introduction of residential and neighborhood serving uses to the Project Site. The Project would be supported by additional parking facilities and improvements to the on-site circulation system.

1.1 Scope of Work

Camp Dresser & McKee Inc. (CDM) was contracted to prepare the Environmental Safety Technical Report for use in development of the Draft Environmental Impact Report (Draft EIR) for the Project. The objective of the assessment was to provide a baseline description of the Project Site related to the use, storage and disposal of hazardous materials and waste. In addition, this technical report evaluates potential impacts related to environmental safety associated with the proposed redevelopment of the Project Site.

Potential environmental safety issues related to the Project are generally encompassed within the following five topics:

- Hazardous Materials Management (including Underground Storage Tanks and Aboveground Storage Tanks)
- Hazardous Waste Management
- Asbestos and Lead-Based Paint
- Polychlorinated Biphenyls (PCBs)
- Closed On-site Landfill

Other related environmental safety issues, such as those associated with air quality, seismicity, surface water quality, and groundwater quality, are addressed separately within other technical reports associated with the Draft EIR.

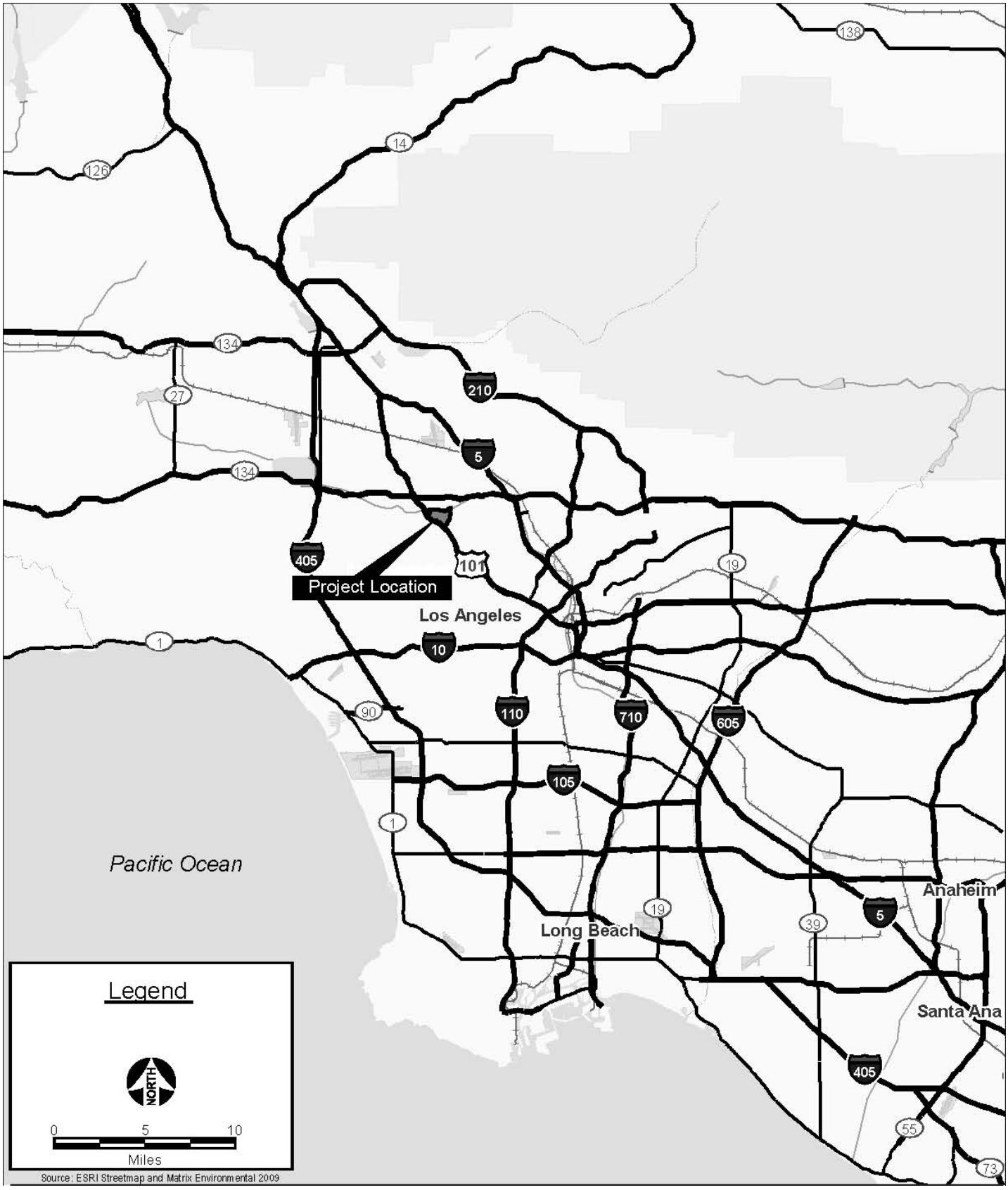
[1] As used hereafter in this report, "Applicant" may include other NBC Universal related entities.

1.2 Site Description

The NBC Universal Evolution Plan is proposed to be developed on an approximately 391-acre site, which is located two miles north of Hollywood and 10 miles northwest of downtown Los Angeles, in central Los Angeles County (the "Project Site"). The Project Site is also located approximately 1.5 miles south and east of the junction of U.S. Route 101 (Hollywood Freeway) and State Route 134 (Ventura Freeway). The Project Site is generally bounded by the Los Angeles River Flood Control Channel (LAFCC)/Los Angeles River to the north, the Hollywood Freeway to the south, Barham Boulevard and residences to the east, and Lankershim Boulevard followed by the Universal City Metro Red Line Station to the west. The Project Site is shown in a regional and local context in Figures 1-1 and 1-2, respectively. An aerial photograph of the Project Site and its relationship to surrounding communities is shown in Figure 1-3. The Project Site has been extensively developed over the past 90 years, although the eastern portion of the Project Site is currently underdeveloped.

The Project Site is located in two jurisdictions, and currently includes approximately 95 acres (24 percent of the total Project Site area) located within the City of Los Angeles, and 296 acres (76 percent) in the unincorporated area of Los Angeles County. The portion of the Project Site within City jurisdiction, as shown in Figure 1-3, involves primarily three non-contiguous areas surrounding the County portion, with small areas along the northern boundary of the Project Site also located within the City of Los Angeles. Proceeding clockwise from the north, the three primary areas are as follows: (1) the northeastern corner of the site along Barham Boulevard; (2) the southeastern corner of the Project Site along Barham Boulevard and Buddy Holly Drive; and, (3) the southern and southwestern portion of the Project Site adjacent to the Hollywood Freeway, which also includes Universal Hollywood Drive and a limited amount of frontage along the north side of Universal Hollywood Drive.

In addition, the Project Site includes two small areas within the City along the northern property boundary (i.e., at the northwestern corner of the Project Site and midway across the northerly boundary of the Project Site). The portion of the Project Site within County jurisdiction is a contiguous area encompassing most of the northern, central and western portions of the Project Site.

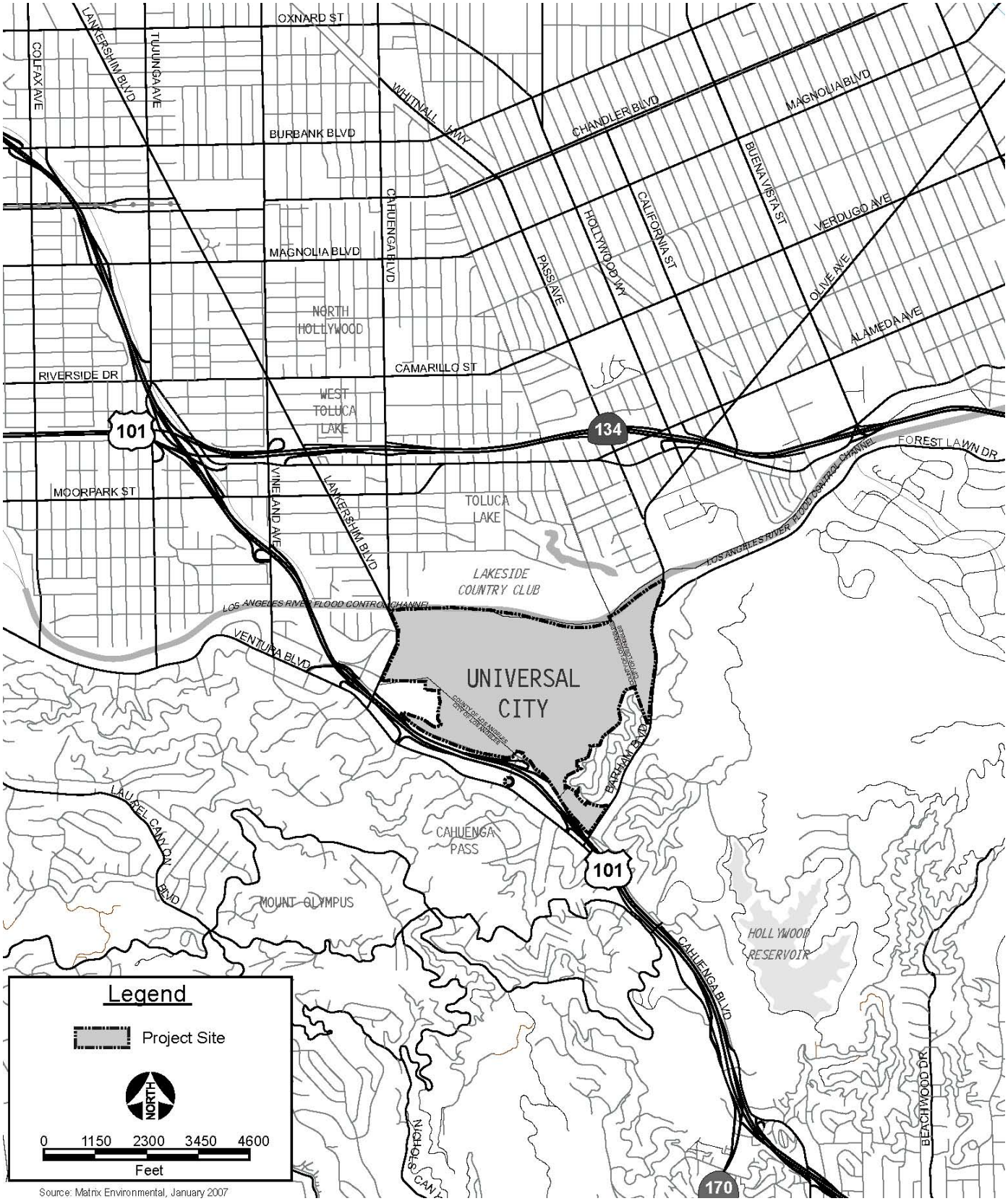


NBC Universal Evolution Plan

Environmental Safety Technical Report

Regional Vicinity Map

Figure 1-1



NBC Universal Evolution Plan

Environmental Safety Technical Report

Project Vicinity Map

Figure 1-2

Source: Matrix Environmental (2009)

NBC Universal Evolution Plan

Environmental Safety Technical Report

Aerial of the Project Site

Figure 1-3

1.3 Existing Setting of the Project Site

The Project Site is presently developed with the following principal land uses: amphitheater, entertainment retail, entertainment, studio production (movie, television and commercial) studio office, and office uses. The Project Site currently consists of approximately 4.2 million square feet of development. The Project Site also includes numerous production sets and the Universal Studios Tram Tour, which do not account for floor area. In addition, during the public review process of the Evolution Plan, it is anticipated that the Applicant would need to construct additional entertainment, studio, studio office and infrastructure improvements as part of its on-going business activities (i.e., interim projects). As such, existing uses, as referenced hereafter, also include projects currently under construction or anticipated to be constructed during the period in which the Project is to be reviewed by the City and the County. Table 1-1 is a summary of existing uses, inclusive of the interim projects, which are as follows:

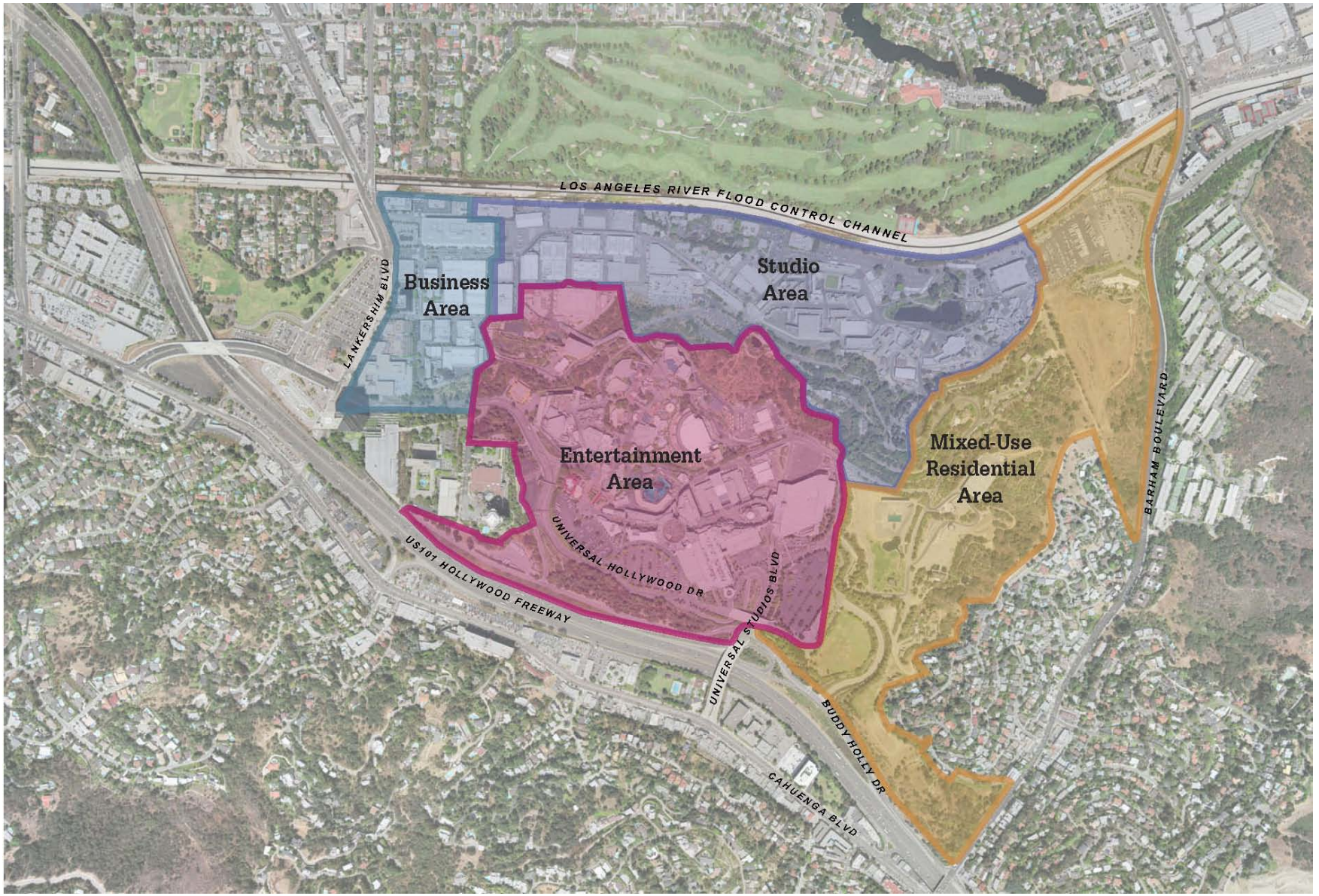
Table 1-1
Existing Uses (Including Interim Projects)

Uses	Square Feet of Building Area (approx.)
Amphitheater	110,600
Entertainment Retail	656,144
Entertainment Use	775,132
Studio	1,228,120
Studio Office	942,545
Office	463,430
Total	**4,175,971**

1.4 Project Description

1.4.1 Proposed NBC Universal E volution Plan

The Project proposes a development program that meets the future needs of the existing businesses located within and adjacent to the Project Site as well as the establishment of a new residential community that contributes to meeting the future housing needs of the eastern San Fernando Valley. The Project Site, for planning purposes, has been divided into the following four development areas: (1) Entertainment Area, (2) Studio Area, (3) Business Area, and (4) Mixed-Use Residential Area. These four development areas are shown on an aerial photograph of the Project Site in Figure 1-4.



Source: Rios Clementi Hale, 2010

NBC Universal Evolution Plan

Environmental Safety Technical Report

Development Areas

Figure 1-4

The Project proposes the development of approximately 2.65 million square feet of new amphitheater, entertainment, entertainment retail, office, studio, studio office, neighborhood-serving and hotel uses. In addition, approximately 2,937 residential dwelling units are proposed to be constructed within the Mixed-Use Residential Area located on the eastern portion of the Project Site. A total of approximately 180,000 square feet of neighborhood-serving uses would be developed as part of, and to support, the proposed on-site residential development. To implement the Project as proposed, a total of approximately 638,048 square feet of existing on-site uses would be demolished. As a result, a total of 2,004,952 net new square feet of amphitheater, entertainment, entertainment retail, studio, studio office, and office uses, and neighborhood-serving and hotel uses are proposed. As part of this Project, the Universal Studios Tram Tour and a few Back Lot sets would be reconfigured and relocated within the Studio Area of the Project Site. Table 1-2, below, provides a summary of the proposed Project.

Table 1-2
Preliminary Building Program

Land Use	Existing Development [a]	Demolition	Gross New Development	Net New Development	Total Development
Studio (sq. ft.)	1,228,120	185,051	493,000	307,949	1,536,069
Studio Office(sq. ft.) [b]	942,545	107,674	545,000	437,326	1,379,871
Office (sq. ft.)	463,430	54,594	550,000	495,406	958,836
Entertainment (sq. ft.)	775,132	149,345	295,000	145,655	920,787
Entertainment Retail (sq. ft.)	656,144	30,784	70,000	39,216	695,360
Amphitheater (sq. ft.)	110,600	110,600	60,000	(50,600)	60,000
Hotel	--	--	450,000[c]	450,000[c]	450,000[c]
Neighborhood-Serving Retail (sq. ft.)	--	--	180,000[d]	180,000 [d]	180,000 [d]
Residential	--	--	2,937 units	2,937 units	2,937 units
Total					
Commercial (sq.ft.)	**4,175,971**	**638,048**	**2,643,000**	**2,004,952**	**6,180,923**
Residential	**--**	**--**	**2,937 units**	**2,937 units**	**2,937 units**

[a] *Includes interim projects.*
[b] *Studio office uses include 15,000 square feet of new child care facilities and demolition of an existing 10,000-square-foot facility..*
[c] *Includes up to 500 hotel guest rooms and related hotel facilities.*
[d] *Includes 65,000 square feet of community-serving facilities.*
Source: NBC/Universal,2009; Matrix Environmental, 2009.

The Applicant, in addition to the proposed development described above, is seeking approval from the Local Agency Formation commission (LAFCO) to annex approximately 76 acres from the County's jurisdiction into the City of Los Angeles. This will have the effect of placing the proposed residential development within the future Mixed-Use Residential Area under the jurisdiction of the City of Los Angeles.

The proposed Project would also involve detachment of approximately 32 acres of the Project Site from the City's jurisdiction into the County, for an overall net change of approximately 44 acres from the County to the City. Should the annexation process be completed, approximately 139 acres of the Project Site would be located within the City of Los Angeles, and the remaining approximately 252 acres of the Project Site would be located within the unincorporated area of Los Angeles County.

The Project is proposed to be implemented via two proposed Specific Plans and various other land use entitlements. One proposed Specific Plan would address development within the County portions of the Project Site, namely the Entertainment, Studio and Business Areas; the other proposed Specific Plan will address development within the City portions of the Project Site, namely the Mixed-Use Residential Area.

The proposed Specific Plans would describe a range of allowable land uses and square footages, as well as applicable building envelopes providing height limitations, setbacks, and related urban design parameters. As flexibility is contemplated in the proposed Specific Plans with regard to particular uses, siting, and massing characteristics, a Conceptual Plan has been prepared as an illustrative scenario to comprehensively demonstrate a potential development program that implements the proposed Specific Plans' land use and development standards. The current Conceptual Plan for the Project is shown in Figure 1-5. The Conceptual Plan is consistent with the allocation of land uses shown in Table 1-2 and with all of the development regulations that would be made a part of the proposed Specific Plans.

Although the Conceptual Plan shown in Figure 1-5 provides a reasonable illustration of how the future Project Site may appear, the uses, location, and orientation of actual future buildings have not yet been determined. Building heights (discussed in more detail below), open space, lighting, signage, landscaping, and architectural features would be consistent with proposed Specific Plan requirements. Notwithstanding, it is anticipated that all residential development would be developed within the Mixed-Use Residential Area that is located on the eastern portion of the Project Site.

The proposed development program is supported by a Circulation Plan which consists of improved access, enhanced internal circulation and convenient parking opportunities. Figure 1-6 sets forth the Project's proposed circulation plan. In addition, the Project proposes to implement an integrated plan for landscape improvements throughout the Project Site, including a proposed Trailhead Park along the Project's LAFCC/Los Angeles River frontage.

1.4.2 Project Construction/Phasing Schedule

The Project would be developed in a number of phases. The Applicant anticipates that construction would conclude by 2030. The timing of actual development would be in response to market conditions.

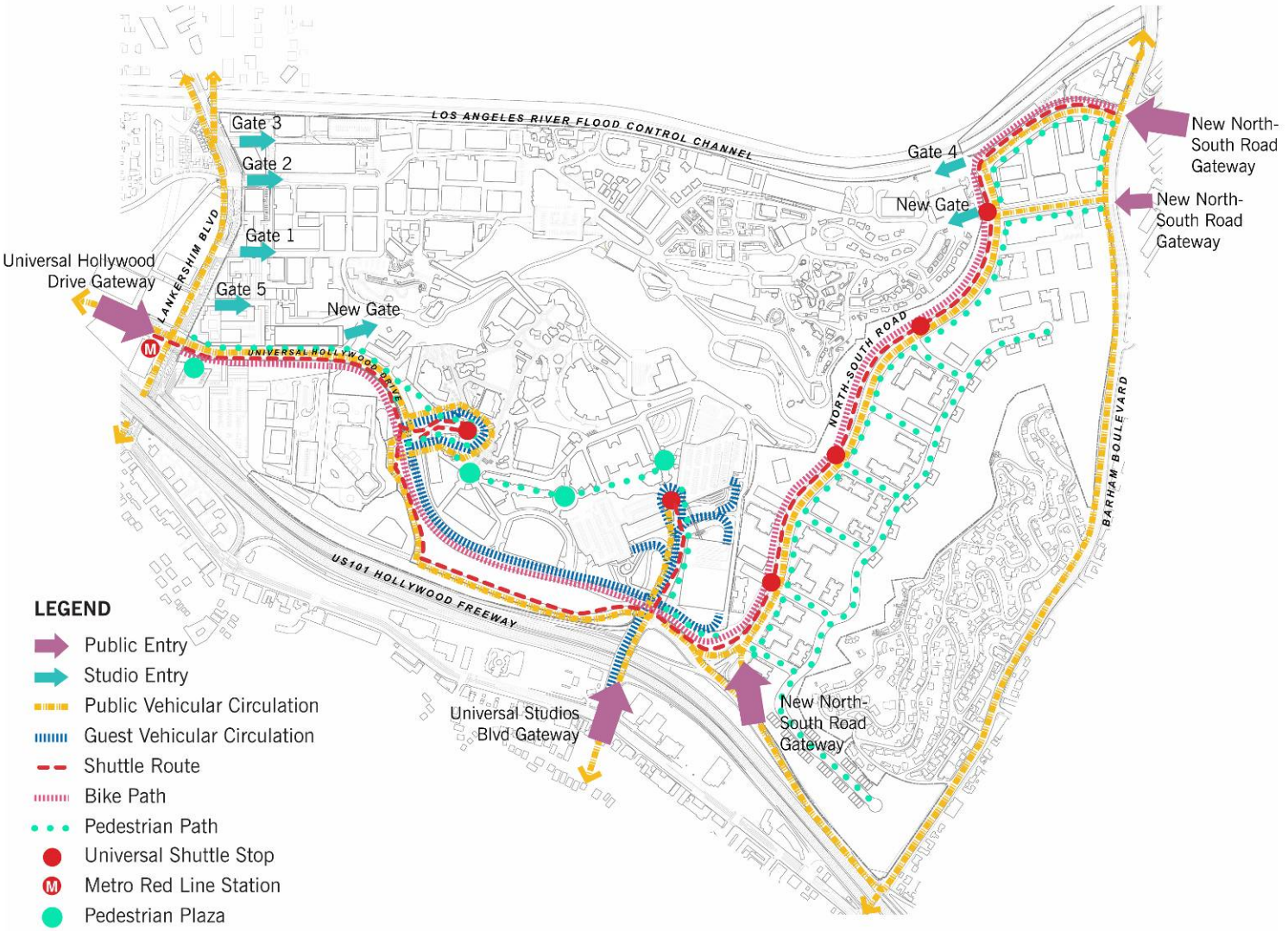
Source: Rios Clementi Hale, 2010

NBC Universal Evolution Plan

Environmental Safety Technical Report

Conceptual Plan

Figure 1-5



Source: Rios Clementi Hale, 2010

NBC Universal Evolution Plan

Environmental Safety Technical Report

Circulation Plan

Figure 1-6

Section 2
Hazardous Materials Management

2.1 Introduction

This section focuses on the following hazardous materials management topics: hazardous materials handling (use and storage), underground storage tanks (USTs) and aboveground storage tanks (ASTs). Asbestos and Lead-Based Paint are discussed in Section 4, and PCBs are discussed in Section 5.

2.2 Environmental Setting

Following is a description of the regulatory setting and the existing physical conditions of the Project Site related to each of the hazardous materials management topics.

2.2.1 Regulatory Framework

The regulations governing the storage and handling of hazardous materials are complex with a varying degree of overlap associated with existing federal, state and local programs. In general, applicable laws and regulations are aimed at hazardous materials inventory and emergency response planning, risk planning and accident prevention, employee hazard communication, public notification of potential exposure to specific chemicals, storage of hazardous materials (including ASTs), and USTs. This section describes the major programs regulating hazardous materials storage and handling applicable to activities occurring, as well as proposed, at the Project Site.

2.2.1.1 Hazardous Materials Handling

In 1986, Congress adopted the Emergency Planning and Community Right-to Know Act (42 U.S.C. secs. 11001-11050) as Title III of the federal Superfund Amendments and Reauthorization Act (SARA). SARA Title III establishes reporting and planning requirements for businesses that handle or store specified hazardous materials. These reports and plans provide federal, state and local emergency planning and response agencies with information about the amounts of materials that businesses use, release, and/or spill. They also provide the public with information about potential hazards in their communities.

In California, many of the requirements of SARA Title III overlap with regulations adopted under the state's Waters Bill and La Follette Bill (discussed in detail below). SARA Title III consists of four separate programs, which includes the following:

- Planning for emergency response (Sections 301 to 303), which is also addressed by the provisions of the La Follette Bill and the Waters Bill;
- Reporting hazardous materials inventories (Sections 311 and 312), which is also required by the Waters Bill;

- Annually reporting total releases of specified "toxic chemicals" (Section 313); and
- Reporting leaks and spills (Section 304), also covered by the Waters Bill.

As indicated, three of the four programs are also addressed by California's La Follette Bill and/or the Waters Bill. Only the annual reporting of releases of specified toxic chemicals is not covered by these bills. Because the quantities of materials handled by the Project Applicant are below applicable regulatory thresholds, the Applicant is not required to comply with the SARA Title III toxic chemicals reporting provisions. The programs associated with the Waters and La Follette Bills are discussed below.

Businesses in California that handle hazardous materials are required to comply with California's Hazardous Materials Release Response Plans and Inventory Law (Assembly Bill [AB] 2185; Health & Safety Code sec. 25500 *et seq.*), which is also known as the Waters Bill. Basic requirements of hazardous materials planning under the Waters Bill include the development of detailed hazardous materials inventories used and stored on-site, a program of employee training for hazardous materials release response, and the identification of emergency contacts and response procedures. The reporting thresholds in the Waters Bill for hazardous materials are:

- 55 gallons of a liquid;
- 500 pounds of a solid;
- 200 cubic feet of a compressed gas measured at standard temperature and pressure; and
- For radioactives, the quantity for which an emergency plan is required under federal or state regulations.

Any facility that meets the minimum threshold for any of the categories listed above must comply with the reporting requirements and file a business emergency plan (BEP) with the local administering agency. For the Project Site the local administering agencies are the Los Angeles County Fire Department (LACoFD) and City of Los Angeles Fire Department (LAFD).

The majority of the Project Site is unincorporated County area, which falls under the jurisdiction of the LACoFD. The LACoFD refers to the BEP as a Hazardous Materials Business Plan (HMBP). The HMBP must include a complete inventory of all hazardous materials used and stored at a site in quantities above associated thresholds and a program of employee training for hazardous materials releases. Specifically, the HMBP includes the following information:

- Business Identification Data: Business name, address, phone number, activity descriptions, and certification by the site owner/operator;

- Occupancy Data: Miscellaneous business data, including standard industrial classification (SIC) code, Los Angeles County business license number and hazardous waste control license number, and other permit information relating to the storage of hazardous materials;

- Detailed Inventory Data: Chemical and common names of hazardous materials and wastes handled in quantities above threshold quantities; specific information about each hazardous waste; maximum amounts of each hazardous material on-site at any time during the year; description of how and where the hazardous materials are handled (including maps); the maximum capacity of the largest container on-site for each hazardous material or waste; and the total estimated amounts of each hazardous waste handled on-site during the year;

- Emergency Response Plans and Procedures: Identification of personnel responsible for notifying agencies of potential or actual hazardous materials releases, location of local medical facilities, and a brief description of operating procedures in the event of a hazardous materials release; and

- Employee Training: Description of employee safety hazardous materials release training.

Senate Bill (SB) 1082 (1994) established the Unified Hazardous Waste and Hazardous Materials Management Regulatory Program (Unified Program). The LACoFD and LAFD are Certified Unified Program Agencies (CUPAs). The Unified Program consolidates and coordinates the six state programs that regulate business and industry's use, storage, handling and disposal of hazardous materials and hazardous wastes. The Project Site includes areas that are in unincorporated County of Los Angeles as well as areas that are in the City of Los Angeles. Although the Project Site operates under both LACoFD and LAFD CUPAs, the LAFD, which has jurisdiction over the City portion of the Project Site, has entered into an agreement with the County of Los Angeles for the LACoFD to administer the hazardous waste components of the Unified Program.[2] The CUPA requirements include submittal of the following:

- Business Information Form

- Hazardous Materials System BP-8 Computer Listing of Inventory Submitted

- Annual Inventory Update Form

- Regulated Substance Registration Form

[2] LAFD Bureau of Fire Prevention and Public Safety – Hazardous Materials and Environmental Compliance Programs/CUPA - website – http://lafd.org/prevention/underground/index.html - last accessed August 21, 2007.

As the Applicant does not store any regulated substances at quantities above applicable threshold, the Applicant does not submit any Regulated Substance Registration forms.

The La Follette Bill (AB 3777; Health & Safety Code secs. 25531 *et seq*.) requires risk planning and accident prevention provisions for facilities that use or store "Acutely Hazardous Materials (AHMs)." AHMs (known as Extremely Hazardous Substances, or EHS, under SARA Title III) are defined as any chemical designated as an extremely hazardous substance in the Code of Federal Regulations (CFR), Title 40, Part 355 (40 CFR 355), Appendix A. Under the La Follette Bill, facilities that store or utilize certain types and quantities of hazardous materials may be required to develop Risk Management Plans (RMPs). RMPs include management, engineering and safety studies, as well as the construction of physical improvements, if warranted, designed to minimize the potential for hazardous materials accidents and, if an accident does occur, to minimize the impacts of such an event. RMPs are process-specific rather than project-specific; as such, they focus on the use of hazardous materials in various operations. For processes that use quantities of hazardous materials at or above the thresholds defined by La Follette, a RMP must be prepared. Quantity thresholds as defined by La Follette are different for differing hazardous constituents. The La Follette Bill requires that RMPs be updated every three years for continuing operations or whenever the process changes to the extent that the current RMP does not reflect the revised process.

The State Office of Emergency Services has delegated authority to local agencies to administer the Waters and La Follette Bills. In the unincorporated County of Los Angeles and the City of Los Angeles, the LACoFD and the LAFD, respectively, have the authority to administer the Waters and La Follette Bills. In cases where the administering agency is the LAFD, RMPs are required to be filed with the Los Angeles County Department of Public Works (LACDPW), as well as with LAFD. The LACoFD and LAFD administer the requirements of these bills through a combination of the following:

- Fire inspections;
- Plan checking;
- Disclosure requirements associated with HMBPs; and
- Requirements for the preparation and filing of RMPs.

Any business handling hazardous materials (as defined in Section 25500 of California Health and Safety Code, Division 20, Chapter 6.95) is required to obtain a local fire department permit and register the business as a hazardous materials handler.

Federal occupational safety and health regulations also contain provisions with respect to hazardous materials management. The applicable federal law is the Occupational Safety and Health Act of 1970, as amended, which is implemented by

the Occupational Safety and Health Administration (OSHA) (29 U.S.C., secs. 651-678). Federal OSHA requirements, set forth in 29 CFR sec. 1910 *et seq.*, are designed to promote worker safety, worker training, and worker right-to-know. A major component of the federal OSHA regulations is the requirement that employers implement the OSHA Hazard Communication Standard (HCS), in order to provide information to employees about the existence and potential risks of exposures to hazardous substances in the workplace. As part of the HCS, employers must:

- Obtain material safety data sheets (MSDSs) from chemical manufacturers which identify the types and handling requirements of hazardous materials used in given areas;
- Make the MSDSs available to their employees;
- Label chemical containers in the workplace;
- Develop and maintain a written hazard communication program; and
- Develop and implement programs to train employees about hazardous materials.

Employers are also required to train a team of employees to appropriate federal OSHA-defined levels, to respond to accidental releases of hazardous materials and, as appropriate, to retain on-call contractors to perform hazardous materials accidental release responses (29 CFR 1910.120, Hazardous Waste Operations and Emergency Response [HAZWOPER] Standards).

Since the State of California has a state plan with provisions at least as stringent as those required by OSHA, the U.S. Department of Labor has delegated the authority to administer OSHA regulations to the State. The California OSHA program (codified in the California Code of Regulations, Title 8, or 8 CCR generally and in the Labor Code Secs. 6300-6719) is administered and enforced by the Division of Occupational Safety and Health (DOSH), a unit of California's Department of Industrial Relations. The California Occupational Safety and Health Act, regulations and programs authorized under the Act, and the Division of Occupational Safety and Health which implements them are all commonly referred to as "Cal/OSHA."

Cal/OSHA is very similar to the federal OSHA program although, in addition to the provisions identified above, Cal/OSHA requires employers to implement a comprehensive, written Injury and Illness Prevention Program (IIPP). An IIPP is an employee safety program that covers the full range of potential workplace hazards, including those associated with hazardous materials. The IIPP includes the following:

- Identify person(s) responsible for program implementation;
- A system for identifying and evaluating workplace hazards (including scheduled inspections);

- Methods and procedures for timely correction of unsafe or unhealthy conditions and work practices;
- A training program to instruct employees in safe and healthy work practices, including job-specific training;
- A system for communicating with employees about health and safety matters at work, including encouraging employees to report worksite hazards; and
- A system for ensuring that employees comply with safe, healthful work practices and do so in a timely manner.

Cal/OSHA may inspect the employers' written program and its implementation; however, the written program need not be made available to the general public.

The Safe Drinking Water and Toxic Enforcement Act (22 CCR sec. 12000 *et seq.*), better known as Proposition 65, was developed in order to improve public health by reducing the incidence of cancer and adverse reproductive outcomes that might result from exposure to potentially hazardous chemicals. To carry out this mission, Proposition 65 requires the following:

- The creation of a list of chemicals and substances, and the levels at which they are believed to have the potential to cause cancer or deleterious reproductive effects in humans;
- Restriction of discharges of listed chemicals into known drinking water sources at levels above the regulatory levels of concern;
- Public notification of any unauthorized discharge of hazardous waste;
- A clear and understandable warning must be given prior to a known and intentional exposure to a listed substance; and
- Establishment of a right of action for private citizens and a separate set of notice requirements for "designated government employees" and counties.

Though Proposition 65 is enforced by the County of Los Angeles Health Officer, the law can also be enforced by state or local government prosecutors (i.e., state Attorney General, County District Attorney, City Attorney).

The California Radiation Control Regulations (17 CCR Division 1, Chapter 5, Subchapter 4) includes standards for the protection against radiation hazards. The Los Angeles County Department of Health Services (DHS), on behalf of the State Department of Health Services, has the primary responsibility for administering these standards, which apply to both employers and employees. Standards include procedures regarding proper use, storage/labeling, training, waste management and disposal, and emergency release.

Additional requirements pertaining to hazardous materials management are set forth in the Uniform Fire Code (UFC). The UFC regulates the types, configuration and quantities of hazardous materials that can be stored within structures. The UFC also regulates the storage of hazardous materials (such as tanks) in outdoor areas. These regulations are implemented through the LACoFD and LAFD through regular inspections of on-site operations and through issuance of notices of violation (NOVs) in cases where storage facilities do not meet code requirements.

In addition to regulations governing hazardous materials handling, there is an equally complex set of reporting requirements associated with a hazardous materials release. These reporting provisions require in some instances notification of the local CUPA (i.e., LACoFD), the State Office of Emergency Services (OES), and National Response Center, if warranted.

The General Plan Safety Elements of the City and County of Los Angeles represent the long-range emergency response plan for the City and County. The Safety Elements seek to address the issues of protection of people from unreasonable risks associated with natural disasters (e.g., fires, floods and earthquakes), as well as reduce future losses of life, injuries and socioeconomic disruption from other safety issues including the management of hazardous materials.

2.2.1.2 Underground Storage Tanks

In 1984, Congress adopted a national underground storage tank (UST) regulatory program (42 U.S.C. sec. 6991 *et seq.*), commonly referred to as "Subtitle I" of the Resource Conservation and Recovery Act (RCRA). Regulations implementing this program are found at 40 CFR 280. Subtitle I authorized the U.S. Environmental Protection Agency (EPA) to issue regulations establishing construction standards for new UST installations (those installed after December 22, 1988), as well as strict standards for:

- Upgrading existing USTs and associated piping;[3]
- New UST installations;
- Corrosion protection for USTs and piping;
- Spill and overfill protection and, for USTs that contain substances other than petroleum, secondary containment methods to detect and contain leaks and leak detection for associated piping;
- Leak detection and reporting of releases and corrective actions;

[3] Existing USTs and associated piping were required to be upgraded or removed under a schedule of deadlines generally requiring earlier upgrading of older UST systems. The last of these deadlines required corrosion protection, leak detection and, in some cases, spill/overfill protection, to be in place by December 22, 1998.

- On-site practices and record keeping;
- UST closure standards; and
- Financial responsibility.

After 1998, all nonconforming tanks were required to be upgraded or closed.

Prior to the adoption of the federal UST regulatory program, the state of California initiated regulation of USTs storing hazardous substances in 1983. The state of California has since further defined the federal laws and regulations related to the UST program. The California Health and Safety Code, Division 20, Chapter 6.7, governs the UST program, and regulates the program in CCR Title 23, Division 3, Chapter 16 and Chapter 18. The various elements regulated by the State's UST program include:

- Registration of USTs;
- Permitting USTs;
- Establishment of UST construction and operational standards;
- Installation of leak detection systems and/or monitoring of USTs for leakage;
- Establishment of UST closure requirements;
- Licensing of UST contractors;
- Establishment of financial responsibility requirements;
- Release reporting/corrective action; and
- Enforcement.

The State's UST program has been amended frequently to incorporate the federal requirements. As with the federal standards, the State's UST program requires that all tanks have leak detection, corrosion protection, and spill and overflow devices by December 1998. USTs that do not meet the 1998 requirements are required to be immediately retrofitted or removed. One notable difference between the federal and state regulations is that under the State's UST program, the demarcation date between "existing" and "new" USTs is January 1, 1984 (as opposed to December 22, 1988).

Oversight of the statewide UST program is assigned to the State Water Resources Control Board (SWRCB) (23 CCR sec. 2610 *et seq.*). The administration of the UST regulatory and permit program is performed by local agencies. The administration of the UST program for the Project Site is shared between the LAFD and the LACDPW. The LAFD regulates USTs within the boundaries of the City while the County

regulates USTs in unincorporated areas of the Project Site. The responsibility for oversight of leaking underground storage tanks lies with the California Regional Water Quality Control Board - Los Angeles Region (LARWQCB). The County's regulations are contained in Title 11, Division 4 of the Los Angeles County Code, and the City's regulations are contained in Chapter 5, Article 7 of the Los Angeles Municipal Code (commonly called the "City of Los Angeles Fire Code").

2.2.1.3 Aboveground Storage Tanks

In 1989, California established the Aboveground Petroleum Storage Act (APSA) instituting a regulatory program covering ASTs containing specified petroleum products (Health and Safety Code secs. 25270-25270.13). APSA applies to a facility if it has a storage capacity of 10,000 gallons or more or is subject to oil pollution prevention and response requirements under 40 CFR Part 112 (40 CFR 112) of the Clean Water Act (CWA). Oil pollution prevention requirements must be met if the facility has a cumulative aboveground storage capacity of 1,320 gallons or more of oil and may reasonably be expected to discharge oil in harmful quantities into navigable waters. The California Environmental Protection Agency's (CalEPA's) Department of Toxic Substances Control (DTSC) regulations may apply if ASTs contain hazardous waste and are stored longer than 90, 180, or 270 days (depending on other criteria).

Under APSA, each owner or operator of a regulated AST facility must file biennially a storage statement with the SWRCB disclosing the name and address of the AST facility; the contact person for the facility; and the location, size, age, and contents of each AST that exceeds 10,000 gallons in capacity and that holds materials that are at least five percent petroleum. In addition, each owner or operator of a regulated AST must prepare a Spill Prevention Control and Countermeasure (SPCC) Plan in accordance with federal and state requirements (40 CFR 112 and Health and Safety Code sec. 25270.5[c]). As noted above, the SPCC Plan is intended to minimize the potential for accidental release of oil (or petroleum) products into or upon the navigable waters of the United States or adjoining shoreline. Groundwater monitoring may also be required if the tank exterior surface, connecting piping and the floor directly beneath the tank, cannot all be monitored by direct viewing. Notification to the OES is required immediately upon discovery of any spill or release of 42 gallons or more of petroleum (Health and Safety Code sec. 25270.8).

Currently, the responsibility for inspecting ASTs and ensuring that SPCC Plans have been prepared lies with the California Regional Water Quality Control Boards (RWQCBs).

In addition to the State requirements, local jurisdictions also impose requirements concerning ASTs. LACoFD mandates that all liquid hazardous materials tanks have secondary containment measures. Also, these ASTs must conform to seismic zone 4 requirements.

The LAFD requires that all ASTs containing more than 60 gallons of combustible materials have a form of secondary containment. If the tank is located inside a

sprinklered building, the secondary containment must be able to hold 100 percent of the tank contents plus 20 minutes of sprinkler water. Outdoor containment must be able to handle 100 percent of the tank contents and 24 hours of rainwater from a 25-year storm.

If volatile organic compound (VOC)-contaminated soil as a result of leakage from storage or transfer operations, accidental spillage, or other deposition is discovered during excavation or grading, the South Coast Air Quality Management District's (SCAQMD's) Rule 1166 (VOC Emission From Decontamination of Soil) requirements to control the emission of VOC's would apply. SCAQMD's Rule 1166 includes the development and approval of a mitigation plan, notification prior to excavation or grading, monitoring for VOC contamination, and the handling and treatment of VOC's if discovered.

2.2.2 Existing Conditions

Since approximately 1915, the Project Site has been in continuous operation as a motion picture studio. The theme park portion of the Project Site has been in operation since approximately 1964. Certain on-site activities, such as movie and television production, Universal Studios Hollywood (theme park) attractions, restaurant cleaning, grounds maintenance, and support for facilities operation (i.e., power generation and air conditioning), involve the acquisition, use, storage and disposal of hazardous materials on a regular basis that have the potential to create hazardous conditions and/or contamination at the Project Site. Following is a comprehensive summary of on-site activities associated with hazardous materials.

2.2.2.1 Government Lists of Contaminated Sites On-site and In the Vicinity of the Project Site

A computerized government records search performed by Environmental Data Resources Inc. (EDR), as summarized below, was completed in late July 2007 to identify potential areas of groundwater and/or soil contamination on-site, or within up to 1.5 miles from the center of the Project Site.[4] The records search included numerous government databases such as those of registered USTs, operators who are hazardous waste generators, former landfills and sites with known hazardous materials release.

In as much as the Project Site includes several addresses (i.e., 3900 Lankershim Boulevard and 100 Universal City Plaza), which reflect a large assemblage of buildings and facilities over a broad area and not necessarily the specific address or location of an individual facility, the EDR records search results include cases where multiple finds are identified for a particular street address; however, the action locations of the finds may be spread out over a large area. CDM's review of the EDR reports included checking for duplicates and coordinates with an on-site

[4] Environmental Data Resources, Inc. "The EDR Radius Map with GeoCheck for Universal Studios", July 19, 2007.

representative of the Applicant to clarify and confirm the EDR search results. In addition, it is possible to have a single site/facility listed several times such as when the same USTs appear listed under more than one corporation name (i.e., Universal Studios, MCA/Universal, and Universal City). As such, on any list there may be multiple listings of a single site/facility or source.

Table 2-1 includes a summary of the records search results and Appendix A includes the complete records search. Provided below is a description of the types of regulatory lists included in the database search, and the acronyms of those lists, as reflected in Table 2-1.

- The EPA's National Priorities List (NPL), or Superfund, is a subset of CERCLIS that catalogues over 1,200 sites designated by the Superfund Program for priority cleanup. Proposed National Priority List Sites (Proposed NPL) encompasses those sites that are suggested for priority cleanup while National Priority List Deletions (Delisted NPL) deals with those sites that can be removed from the NPL by the EPA through the criteria established by The National Oil and Hazardous Substances Pollution Contingency Plan (NCP). NPL LIENS contains the EPA's compilation of filed notices of Superfund Liens.

- The EPA's Comprehensive Environmental Response, Compensation, and Liability Information System (CERCLIS) is a database for potentially hazardous waste sites that have been reported to the USEPA by states, municipalities, private companies and private persons. Sites are reported to CERCLIS according to Section 103 of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). The CERCLIS No Further Remedial Action Planned (CERCLIS-NFRAP) database archives sites that have been removed from the inventory of CERCLIS sites. Inclusion in the CERCLIS-NFRAP database indicates that the site has been assessed and determined by the EPA that no further steps will be taken to list the site on the NPL.

- The EPA's Corrective Action Report (CORRACTS) classifies hazardous waste handlers with RCRA corrective action activity.

- The EPA/National Technical Information Service's (NTIS) Resource Conservation and Recovery Information System (RCRIS) includes selective information on sites that generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Designations include Small Quantity Generator, Large Quantity Generator, and TSD (treat, storage, disposal).

- The EPA/NTIS' Emergency Response Notification System (ERNS) records and stores information on reported releases of oil and hazardous substances.

- The Hazardous Materials Information Reporting System (HMIRS) contains hazardous material spill incidents reported to the U.S. Department of Transportation.

- EPA's Engineering Controls Sites List (US ENG CONTROLS) contains a listing of sites with engineering controls in place to create pathway elimination for regulated substances to enter environmental media or effect human health.

- EPA's Sites with Institutional Controls (US INST CONTROLS) lists sites with institutional controls in place, which are intended to prevent exposure to contaminants remaining on site.

- The USGS's Department of Defense Sites (DOD) lists the lands that are either federally owned or administered by the Department of Defense with area equal to or greater than 640 acres of the United States (U.S.), Puerto Rico, and the U.S. Virgin Islands.

- The U.S. Army Corps of Engineers' Formerly Used Defense Sites (FUDS) database details the locations of Formerly Used Defense Sites where the U.S. Army Corps of Engineers is actively working or will take necessary cleanup actions.

- EPA's Listing of Brownfields Sites (US BROWNFIELDS) contains brownfields properties addressed by Cooperative Agreement Recipients and Targeted Brownfield Assessments.

- The Department of Justice/Consent Decree Library's Superfund (CERCLA) Consent Decrees, or CONSENT, establish responsibility and standards for cleanup at NPL sites based on major legal settlements.

- EPA's Record of Decision (ROD) orders a permanent remedy for an NPL site and contains technical and health information to assist the cleanup.

- The Department of Energy's Uranium Mill Tailings Sites (UMTRA) lists properties containing uranium mill tailings.

- The EPA's Open Dump Inventory (OPI) tracks disposal facilities that do not comply with one or more of the Part 257 or Party 258 Subtitle D Criteria.

- EPA's Toxic Chemical Release Inventory System (TRIS) identifies facilities that release toxic chemicals to the air, water, and land in reportable quantities as defined by SARA Title III Section 313.

- The EPA's Toxic Substances Control Act (TSCA) details the manufacturers and importers of chemical substances found on the TSCA Chemical Substance Inventory list and the production volumes of such substances by plant sites.

- EPA's FIFRA/TSCA Tracking System (FTTS) tracks administrative cases and pesticide enforcement actions and compliance activities related to the Federal Insecticide, Fungicide, & Rodenticide Act (FIFRA), Toxic Substances Control Act (TSCA), and Emergency Planning and Community Right-to-Know-Act (EPCRA). The FTTS INSP database contains a listing of FTTS inspections and enforcements.

- The EPA's Section 7 Tracking Systems (SSTS) contains reports of the types and amounts of pesticides, active ingredients, and devices produced and sold or distributed within the past year by pesticide-producing facilities.

- EPA's CERCLA Lien Information (LIENS 2) tracks liens resulting from EPA expenditure of Superfund monies for investigating and addressing contaminant releases.

- The EPA's Radiation Information Database (RADINFO) contains information about facilities that are regulated for radiation and radioactivity under U.S. EPA regulations.

- The U.S. Department of Justice provides the location of clandestine drug labs (CDL) based on reports from law enforcement agencies.

- EPA's FIFRA/TSCA Tracking System Administrative Case Listing (HIST FTTS) contains a complete administrative case listing from the FTTS for all ten EPA regions.

- The EPA's Integrated Compliance Information System (ICIS) provides the information needs of the National Enforcement and Compliance program as well as the National Pollutant Discharge Elimination System (NPDES).

- The Department of the Navy's Land Use Control Information System (LUCIS) contains records of land use control information pertaining to former Navy Base Realignment and Closure properties.

- The Department of Transportation's Incident and Accident Data (DOT OPS) contains the DOT, Office of Pipeline Safety Incident and Accident data.

- EPA's PCB Activity Database System (PADS) identifies generators, transporters, commercial storers and/or brokers and disposers of PCB's who are required to notify the EPA of their activities.

- The Nuclear Regulatory Commission's Material Licensing Tracking System (MLTS) contains a list of approximately 8,100 sites that possess or use radioactive materials and are subject to NRC licensing requirements.

- The Department of Labor, Mine Safety and Health Administration's Mine Master Index File (MINES) contains all mine identification numbers issued for mines active or opened since 1971.

- EPA's Facility Index System/Facility Identification Initiative Program Summary Report (FINDS) contains both facility information and "pointers" to other sources that contain more detailed information.

- The EPA's RCRA Administrative Action Tracking System (RAATS) contains records based on enforcement actions issued under RCRA pertaining to major violators, including administrative and civil actions brought by the EPA.

- The DTSC's Calsites Database (Hist Cal-Sites) contains potential or confirmed hazardous substance release properties; the database is no longer being updated and has been replaced by ENVIROSTOR.

- The Bond Expenditure Plan (CA Bond Exp. Plan) is a site-specific expenditure plan created by the Department of Health Services for the allotment of Hazardous Substance Cleanup Bond Act funds. This list is no longer being updated.

- The DTSC's School Property Evaluation Program (SCH) contains proposed and existing school sites that are being evaluated by DTSC for potential hazardous materials contamination.

- The SWRCB's Toxic Pits Cleanup Act Sites (Toxic Pits) indicates sites that may contain hazardous waste where cleanup has yet to be completed.

- The Integrated Waste Management Board's Solid Waste Information System (SWIS or State Landfill) contains an inventory of solid waste disposal facilities or landfills and tracks their status as active, closed, or inactive.

- The SWRCB's Waste Discharge System (CA WDS) tracks sites that have been issued waste discharge requirements.

- The Waste Management Unit Database System (WMUDS) tracks waste management programs and inventories waste management units for the State Water Resources Control Board (SWRCB) staff and the Regional Water Quality Control Boards.

- The CalEPA Office of Emergency Information's (OEI) "Cortese" Hazardous Waste and Substances Sites List (CORTESE) lists sites contained in other hazardous waste databases, such as those of the SWRCB for LUSTs, the California Integrated Waste Management Board (CIWMB) for Solid Waste Facilities/Landfills (SWF/LF), and DTSC for CAL-SITES. This list is no longer being updated by the state agency.

- The Department of Conservation's Recycler Database (SWRCY) tracks all of the recycling facilities in California.

- The SWRCB's Leaking Underground Storage Tank Information System (LUST) includes leaking UST incident reports. LUST records contain an inventory of reported leaking UST incidents.

- CalEPA's Facility Inventory Database (CA FID UST) contains a historical listing of active and inactive underground storage tank (UST) locations from the SWRCB.

- The SWRCB's Statewide Spills, Leaks, Investigations, and Cleanups (SLIC) listings include unauthorized discharges from spills and leaks, other than from underground storage tanks or other regulated sites.

- The San Gabriel Valley Areas of Concern list (AOCONCERN) identifies areas where VOC contamination is at or above the MCL designated by the Region 9 EPA office.

- The SWRCB's Active UST Facilities (listed as UST in the EDR report and Table 2-1) contains lists of active USTs gathered from local regulatory agencies.

- The SWRCB's Hazardous Substance Storage Container Database (HIST UST) is a historical listing of UST sites.

- The SWRCB's Aboveground Petroleum Storage Tank Facilities (listed as AST in the EDR report and Table 2-1) tracks registered AST sites.

- The DTSC's Environmental Liens Listing (LIENS) lists property locations with environmental liens for California where DTSC is a lien holder.

- The SWRCB's Statewide Environmental Evaluation and Planning System (SWEEPS UST) kept track of USTs during the early 1980s. The list is no longer being updated or maintained.

- The Office of Emergency Service's California Hazardous Materials Incident Report System (CHMIRS) contains information on reported accidental releases or spills of hazardous materials.

- The SWRCB's Proposition 65 Records database (NOTIFY 65) contains facility notifications about any release that could impact drinking water and thereby expose the public to a potential health risk.

- The LA Co. Site Mitigation List contains information regarding industrial sites that have had some sort of spill or complaint and is maintained by Community Health Services.

- The DTSC's Deed Restriction Listing (DEED) tracks active deed restrictions due to the presence of hazardous substances that remain on site after a cleanup or closure.

- The DTSC's Voluntary Cleanup Program (VCP) list contains low threat level properties with either confirmed or unconfirmed releases; the project proponents have requested that DTSC oversee investigation and/or cleanup activities and have agreed to provide coverage for DTSC's costs.

- CalEPA DTSC's Cleaner Facilities database (DRYCLEANERS) lists drycleaner related facilities that have EPA identification numbers.

- The Los Angeles Co. Hazardous Materials System (HMS) lists industrial waste and UST sites and is maintained by the Department of Public Works.

- The LARWQCB's Well Investigation Program Case List (WIP) contains information regarding the Well Investigation Program case in the San Gabriel and San Fernando Valley area.

- The DTSC's Clandestine Drug Labs (CDL) listing contains locations of drug labs. Listing of a location in this database does not indicate that any illegal drug lab materials were or were not present there, and does not constitute a determination that the location either requires or does not require additional cleanup work.

- The DTSC's State Response Sites (RESPONSE) database details confirmed release sites where the DTSC is involved in remediation (either as lead or oversight). These sites are usually high-priority and high potential risk.

- CalEPA's Hazardous Waste Information System (HAZNET) includes hazardous waste facility and manifest data, which is extracted from copies of hazardous waste manifests received each year by the CalEPA's Department of Toxic Substances Control (DTSC).

- CalARB's Emissions Inventory Data (EMI) contains toxics and criteria pollutant emissions data collected by the ARB and local air pollution agencies.

- The DTSC's EnviroStor Database (ENVIROSTOR) lists sites that have known contamination or sites that provide cause for further investigation.

- The USGS's Indian Reservations listing (INDIAN RESERV) portrays Indian administered lands of the United States with area equal to or greater than 640 acres.

- The EPA's INDIAN LUST database lists leaking underground storage tank locations on Indian Land.

- The EPA's INDIAN UST database lists underground storage tank locations on Indian Land.

- EDR Proprietary Manufactured Gas Plants Database (Manufactured Gas Plants) contains records of coal gas plants compiled by EDR's researchers.

Table 2-1 includes a summary of the EDR search results and includes all database listed for all locations within the Project Site boundary. [5]

Table 2-1
Summary of Environmental Database Search Results

Database	Project Site	Search Distance (Miles)	Results Per Distance				
			< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1
Federal Records							
NPL		1.50	1	0	0	0	0
Proposed NPL		1.00	0	0	0	0	NR
Delisted NPL		1.00	0	0	0	0	NR
NPL LIENS		TP	NR	NR	NR	NR	NR
CERCLIS		1.000	1	0	0	0	NR
CERC-NFRAP		0.50	0	0	0	NR	NR
CORRACTS		1.00	0	0	0	0	NR
RCRA TSD		0.50	0	0	0	NR	NR
RCRA Lg. Quan. Gen.	X	0.75	1	0	0	1	NR
RCRA Sm. Quan. Gen.	X	0.75	0	1	4	14	NR
ERNS	X	TP	NR	NR	NR	NR	NR
HMIRS		TP	NR	NR	NR	NR	NR
US ENG CONTROLS		1.00	1	0	0	0	NR
US INST CONTROL		0.50	0	0	0	NR	NR
DOD		1.00	0	0	0	0	NR
FUDS		1.00	0	0	0	0	NR
US BROWNFIELDS		0.50	0	0	0	NR	NR
CONSENT		1.00	0	0	0	0	NR
ROD		1.50	1	0	0	0	0
UMTRA		0.50	0	0	0	NR	NR
ODI		0.50	0	0	0	NR	NR
TRIS		TP	NR	NR	NR	NR	NR
TSCA		0.50	0	0	0	NR	NR
FTTS		TP	NR	NR	NR	NR	NR
SSTS		TP	NR	NR	NR	NR	NR
LIENS 2		TP	NR	NR	NR	NR	NR
RADINFO		TP	NR	NR	NR	NR	NR
CDL		TP	NR	NR	NR	NR	NR
HIST FTTS		TP	NR	NR	NR	NR	NR
ICIS		TP	NR	NR	NR	NR	NR
LUCIS		0.50	0	0	0	NR	NR
DOT OPS		TP	NR	NR	NR	NR	NR

[5] Table 2-1 includes a larger range of results than those reported by EDR as being within the "target property". As a result, slight differences exist between the summary tables in the EDR (in Appendix A of this technical report) and those presented in Table 2-1.

Table 2-1
Summary of Environmental Database Search Results

Database	Project Site	Search Distance (Miles)	Results Per Distance				
			< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1
PADS		TP	NR	NR	NR	NR	NR
MLTS		TP	NR	NR	NR	NR	NR
MINES		0.25	0	0	NR	NR	NR
FINDS	X	0.50	1	1	4	NR	NR
RAATS		TP	NR	NR	NR	NR	NR
State and Local Records							
Hist Cal-Sites		1.00	1	0	0	0	NR
CA Bond Exp. Plan		1.00	0	0	0	0	NR
SCH		0.25	0	0	NR	NR	NR
Toxic Pits		1.00	0	0	0	0	NR
State Landfill (SWF/LF)	X	0.50	0	0	0	NR	NR
CA WDS		TP	NR	NR	NR	NR	NR
WMUDS/SWAT	X	1.00	0	0	0	1	NR
CORTESE	X	1.00	1	0	0	7	NR
SWRCY		0.50	0	0	0	NR	NR
LUST	X	1.00	2	0	0	9	NR
CA FID UST	X	0.75	1	0	3	15	NR
SLIC		0.50	0	0	0	NR	NR
AOCONCERN		1.00	0	0	0	0	NR
UST	X	0.75	1	0	2	4	NR
HIST UST		0.75	1	0	3	5	NR
AST	X	0.25	0	0	NR	NR	NR
LIENS		TP	NR	NR	NR	NR	NR
SWEEPS UST	X	0.75	2	0	3	14	NR
CHMIRS	X	TP	NR	NR	NR	NR	NR
Notify 65		1.00	0	0	0	0	NR
LA Co. Site Mitigation		TP	NR	NR	NR	NR	NR
DEED		0.50	0	0	0	NR	NR
VCP		0.50	0	0	0	NR	NR
DRYCLEANERS		0.75	0	0	0	3	NR
Los Angeles Co. HMS		0.50	0	0	3	NR	NR
WIP		0.75	0	0	0	1	NR
CDL		TP	NR	NR	NR	NR	NR
RESPONSE		1.50	0	0	0	0	0
HAZNET	X	0.50	1	3	12	NR	NR
EMI	X	0.50	1	0	3	NR	NR
ENVIROSTOR		1.50	1	0	0	0	1
Tribal Records							
INDIAN RESERV		1.00	0	0	0	0	NR
INDIAN LUST		0.50	0	0	0	NR	NR

Table 2-1
Summary of Environmental Database Search Results

Database	Project Site	Search Distance (Miles)	Results Per Distance				
			< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1
INDIAN UST		0.25	0	0	NR	NR	NR
EDR Proprietary Records							
Manufactured Gas Plants		1.00	0	0	0	0	NR

Source: EDR, July 19, 2007
NOTES:
TP = Target Property as defined in EDR report
NR = Not Requested at this Search Distance
Sites may be listed in more than one database

Below is a breakdown of the nature of the sites associated with the Applicant's and its tenants' operations on the Project Site that were identified in the EDR report:

- The Project Site is listed on the AST database for 24,845 total gallons of ASTs.
- The Project Site is listed on the ERNS database, which records and stores information on reported releases of oil and hazardous materials, but the listing provided no further details.
- The Project Site is listed on the CA FID UST and SWEEPS UST databases for containing USTs and is listed under the LUST database for a tank leak at Stage 27 (addressed by remedial action) and a gasoline release during tank closure at the Universal Studios Tram Maintenance Area/Garage that is currently listed as undergoing "pollution characterization" – see detailed discussion under Section 2.2.2.3.2 below).
- The Project Site is listed on the CHMIRS database for a broken water line in 2002.
- The Project Site is listed on the CORTESE and HAZNET databases for latex wastes and organic solids.
- The Project Site is listed in the SWF/LF (also known as "State Landfill") database as a solid waste disposal site; at this time, its operator's status is "closed." Also related to the on-site landfill is the Applicant's listing on the WMUD/SWAT and EMI databases.
- The Applicant is identified as a RCRA Large Quantity Generator, producing halogenated wastes, inorganic solid wastes, and organic liquid wastes. There are currently no violations.
- Technicolor Incorporated (Technicolor), a tenant located at the northern corner of the Business Area portion of the Project Site, is marked as a RCRA Large Quantity Generator. There are currently no violations noted. Technicolor also appears in the

CORTESE and LUST databases. The LUST database has flagged Technicolor's location as currently having a NOV and order to comply and is actively undergoing cleanup for groundwater contamination from a solvent release.

- Texaco, Inc., located at 100 Universal City Plaza was listed on the UST database.

- Two sites, formerly occupied by Captain Coconuts and Out Takes Inc., located at 1000 Universal Studios Boulevard (within CityWalk), were found on the HAZNET database (associated with on-site waste).[6] No violations were listed for these sites.

- Within ⅛ mile of the Project Site is the San Fernando Valley (Area 2) Crystal Springs Wellfield Area that is listed in the NPL, CERCLIS, FINDS, RESPONSE, Hist Cal-Sites, ENVIROSTOR, ROD, and US ENG CONTROLS databases. This area has contaminated groundwater (TCE and PCE) discovered in 1984.[7]

The EDR database search displayed several other results that were noted as being in the Project Site boundary (and therefore included in Table 2-1); however, these properties are not located on-site, but adjacent to the southwest corner of the Project Site:

- Anderson Video Co., located at 100 Universal City Plaza Building, was listed in the FINDS and RCRA Small Quantity Generators databases. No violations were listed for this site. The Applicant has indicated that this entity is no longer at the subject location.

- Texaco Office Building, located at 10 Universal City Plaza, was identified by the LUST, CORTESE, and RCRA Small Quantity Generators and UST database. Texaco's site experienced groundwater contamination due to released hydrocarbons; the case has been closed since July 17, 1996. The Applicant has stated that Texaco is no longer at that location but a UST for an emergency generator remains at the site.

- Pacific Photo Express Ltd., located at 100 Universal City Plaza, was identified on the FINDS database and also designated as an RCRA Small Quantity Generator. No violations were listed for this site. This location appears on the HAZNET database as a generator of photochemicals/photoprocessing wastes.

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[6] The EDR report lists these sites as being located at 1000 Universal Center Drive (now 1000 Universal Studios Boulevard). In addition, the Applicant has indicated that both businesses - Capitan Coconuts or Out Takes Inc - are no longer at this location.

[7] The radius map included in the EDR showed the Crystal Springs Wellfield as being situated below the entire Project Site. As part of a San Fernando Valley basinwide feasibility study, a groundwater flow model was developed in 1992 (and recalibrated in 1994). The groundwater flow model displays the hydraulic conductivity zones associated with the Basin at the Project Site as ending in the area of the LAFCC/Los Angeles River, and not underlying the entire Project Site (EPA website – http://yosemite.epa.gov/r9/sfund/TEChdoc.nsf/- Figure 5-1 – Hydraulic Conductivity Zones, Model Layer 1 – website last accessed February 13, 2007). Therefore, Table 2-1 does not present the databases associated with the Crystal Springs Wellfield Area.

- Under World Production, located at 100 Universal City Plaza, was identified by the HAZNET database for generating 0.3 tons of household waste.

- The Universal City Hilton & Towers, located at 555 Universal Hollywood Drive, is listed on the HAZNET and RCRA Small Quantity Generators databases for organic liquid mixtures, latex wastes, and used oils. No violations were listed for this site.[8]

2.2.2.2 Other Environmental Site Information

2.2.2.2.1 Phase I Environmental Site Assessment

In 2005, MWH Americas, Inc. (MWH) performed a Phase I Environmental Site Assessment (ESA) in and around the Mixed-Use Residential Area of the Project Site.[9] The Phase I ESA studied an approximately 186 acre area in the eastern portion of the studio and entertainment operations, which included various structures (including buildings and facades/sets), parking lots, open areas, concrete-lined water features (e.g., Park Lake, Jaws Lake, etc.), asphalt-paved roadways, and various theme park attractions (i.e., *Earthquake*). The findings of the Phase I ESA identified the following potential environmental issues:

- Asbestos
- Cesspools/Septic Tanks
- Closed Landfill
- Compressors
- Electrical Transformers
- Generators
- Hydraulic Equipment
- Lead-Based Paint
- Paint Shops
- Buried Debris Area
- Underground Storage Tanks

[8] The EDR report lists the University City Hilton & Tower at 555 Universal Terrace Parkway (now 555 Universal Hollywood Drive).

[9] MWH Americas Inc. (MWH); "Phase I Environmental Site Assessment, Universal City Studios Backlot Study Area, Universal City, California," May 25, 2005.

2.2.2.2.2 Preliminary Phase II Environmental Site Assessment

To further evaluate the presence or absence of subsurface impacts in selected areas associated with potential environmental concerns identified during the Phase I ESA (noted above), MWH performed a Preliminary Phase II ESA.[10] The study area of MWH's Preliminary Phase II ESA was more focused than the Phase I ESA (approximately 143 acres were studied in the MWH Preliminary Phase II ESA compared to 186 acres studied in the Phase I ESA).[11] As described in detail in the Groundwater Technical Report for the Project, the objective also included baseline assessment of shallow groundwater chemistry and hydraulic conditions underlying approximately half of the northern portion of the Project Site (mostly northeastern portion). The MWH Preliminary Phase II ESA included the following activities:

- Collection and chemical analysis of 54 soil samples from 28 soil borings;
- Collection and chemical analysis of six soil samples from three of the 13 groundwater well soil borings;
- Collection and chemical analysis of seven surface soil samples near transformers;
- Completion of two exploratory test pit excavations of suspected buried debris areas along the hill slope between Denver Street and the northern house facades on Elm Street (the "Buried Debris Area"), with collection and chemical analysis of six soil samples in and around the test pits; and
- Construction and survey of 13 groundwater monitoring wells, including completion of a round of groundwater elevation measurements and collection and chemical analysis of 12 groundwater samples from the 13 groundwater monitoring wells (details provided in the Groundwater Technical Report for the Project).

A summary of the MWH Preliminary Phase II ESA soil sampling results, including test pit and transformer samples, is as follows:

- No VOCs were detected in 63 of the 79 soil samples. Up to seven VOCs (acetone, benzene, toluene, isopropylbenzene, p-isopropyltoluene, 4-chlorotoluene, and methylene chloride) were reported above laboratory reporting limits (RLs) in 16 soil samples. The detected concentrations of VOCs were below the established

[10]MWH Americas Inc.; "Preliminary Phase II Environmental Site Assessment, Universal City Studios Backlot Study Area, Universal City, California," May 26, 2005.

[11] The study area for the Preliminary Phase II ESA was determined based on the potential environmental concerns indentified during the Phase I ESA and the proposed uses in those areas of the Project Site. The study area of the Preliminary Phase II ESA did not include the northwestern portion of the Phase I ESA study area (area west of Park and Jaws Lakes). Of the potential environmental issues identified in the Phase I ESA (see Section 2.2.2.2.1), the Closed Landfill was not further addressed in the Preliminary Phase II ESA. The Closed Landfill is the subject of on-going periodic monitoring pursuant to applicable regulatory requirements.

regulatory screening criteria. For VOCs the appropriate regulatory screening criteria is the EPA's residential and industrial Preliminary Remediation Goals (PRGs). Therefore, detected concentrations of VOCs were below both the residential and industrial PRGs for those compounds with established PRGs (no PRGs are established for isopropylbenzene, p-isopropyltoluene, and 4-chlorotoluene).

- No semi-volatile organic compounds (SVOCs) were detected in 59 of the 79 soil samples. Up to two SVOCs (phenol and benzyl alcohol) were reported above RLs in 20 samples. The detected concentrations of SVOCs were below both the residential and industrial PRGs.

- Up to 17 Title 22 metals (antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, copper, lead, mercury, molybdenum, nickel, selenium, silver, thallium, vanadium, and zinc) were detected above RLs in 71 of the 79 soil samples. With the exception of arsenic and lead, detected concentrations were below PRGs. The detection of arsenic and lead exceeded both residential and industrial PRGs. Arsenic was detected in all but one of the soil samples. The detected concentrations of arsenic ranged from 1.74 and 13.20 milligrams per kilogram (mg/kg), which exceeded the residential and industrial PRGs of 0.062 and 0.25 mg/kg, respectively. In Southern California, naturally-occurring levels of arsenic soils are commonly above the PRG and California Human Health Screening Levels (CHHSL) values. Two of the soil samples with lead detection (at concentrations of 753 mg/kg and 924 mg/kg) exceeded the residential PRG of 150 mg/kg, with the higher value also exceeding the industrial PRG of 800 mg/kg.

- Up to 22 of the soil samples detected TPH-cc range C9 to C44 above RLs. No PRGs are established for TPH, therefore, the TPH-cc concentrations detected were compared to established RWQCB soil screening levels (SSLs). None of the TPH-cc detected concentrations exceeded RWQCB SSLs.

- No PCBs were detected in 76 of the 79 soil samples. One PCB (Aroclor 1260) was detected above RLs in three of the soil samples collected. The detected concentrations of Aroclor 1260 were below established residential and industrial PRGs.

Groundwater sampling and analyses indicated the absence of significant groundwater impacts. The summary of the MWH Preliminary Phase II ESA groundwater results are in the Groundwater Technical Report for the Project.

Related to soil chemistry, the MWH Preliminary Phase II ESA concluded that concentrations of VOCs, SVOCs, Title 22 metals (except arsenic and lead, as described above), TPH-cc, and PCBs in soil were detected at concentrations below regulatory screening levels (PRGs or RWQCB SSLs), related to soil chemistry.

2.2.2.2.3 Supplemental Phase II Environmental Site Assessment

To further investigate areas of interest identified in MWH's Preliminary Phase II ESA, URS conducted a Supplemental Phase II ESA for the Universal Studios Back Lot Study Area.[12] The Supplemental Phase II ESA included the following activities:

- Collection and analysis of soil samples on a 200-square-foor grid across the study area to evaluate baseline environmental conditions in the study area;
- Focused soil sample collection in the vicinity of several inactive septic tanks, the Buried Debris Area previously identified by MWH, and 12 transformers for PCB analysis;
- Installation of groundwater monitoring wells; and
- Groundwater sample collection and analysis from existing and new groundwater monitoring wells to fill data gaps in pre-existing groundwater characterization.

In total, 517 soil samples were collected and analyzed during both the MWH Preliminary Phase II ESA and the URS Supplemental Phase II ESA. The summary of both the MWH Preliminary Phase II ESA and URS Supplemental Phase II ESA soil sampling results is as follows:

- Of the 503 and 502 soil samples analyzed for VOCs and SVOCs, respectively, all the concentration results were below their respective PRG values. CHHSL values have not been established for SVOCs and VOC soil concentrations.
- Metals were analyzed in 503 soil samples. Of the 17 Title 22 metals (the same as analyzed by MWH Preliminary Phase II ESA (noted above), the soil chemistry results for four metals (arsenic, cadmium, lead, and vanadium) were detected at concentrations above regulatory screening levels (PRGs or CHHSLs). Detectable arsenic concentrations ranged from 0.316 to 93.4 mg/kg. Arsenic above the residential PRG and CHHSL was detected in 502 of the 503 samples. In Southern California, naturally occurring levels of arsenic soils are commonly above the PRG and CHHSL values. Of the 503 samples analyzed, 397 samples detected cadmium above the CHHSL value of 1.7 mg/kg; however, none of the results were above the PRG value of 37 mg/kg. Of the 503 soil samples analyzed, eight samples detected lead above the PRG and CHHSL value of 150 mg/kg. These samples were all located in, or in the area surrounding, the Buried Debris Area. Vanadium was detected above the PRG value of 78 mg/kg in seven of the 503 soil samples analyzed. All the vanadium concentrations were below the CHHSL value of 530 mg/kg.
- No PRGs are established for TPH, therefore, the TPH-cc concentrations detected were compared to established RWQCB SSLs. Two samples were detected above

[12] URS; "Supplemental Phase II Environmental Site Assessment, Universal City Studios Backlot Study Area, Universal City, California", May 16, 2006.

the SSL for intermediate-range C13 to C22 hydrocarbons of 100 mg/kg (concentrations of 118 and 127 mg/kg). These samples were located in the Transportation Fuel Area (located just east of Building 8166). The remaining TPH detections were below RWQCB SSLs.

- PCBs were analyzed in 517 soil samples. Eight samples had PCBs (including Aroclor 1254 and 1260) at concentrations above residential PRG (of 0.22 mg/kg). In addition, twelve soil samples were above the CHHSL (of 0.089 mg/kg), but below the PRG.

Groundwater sampling and analyses indicated the absence of significant groundwater impacts. The summary of the URS Supplemental Phase II ESA groundwater results are discussed in the Groundwater Technical Report for the Project.

2.2.2.2.4 Ongoing Site Assessment

The conclusions presented in the Phase I ESA, Preliminary Phase II ESA and Supplemental Phase II ESA conducted at the Project Site did not identify significant environmental issues, with the possible exception of certain soil samples having concentrations of metals and PCBs in excess of residential CHHSLs and/or residential PRGs. These results are being evaluated by DTSC, pursuant to DTSC's Voluntary Cleanup Program, to further assess whether the presence of those materials pose a significant risk to human health or the environment, including as related to existing and potential future uses nearby. Should it be determined that the nature, location, and concentrations of those materials pose an unacceptable risk, various options to reduce the risk to an acceptable level will be identified under DTSC oversight. Potential remedial options may include removal (excavation), treatment (*in-situ* or *ex-situ*), or other measures, as appropriate.

2.2.2.3 Hazardous Materials Handling

2.2.2.3.1 Hazardous Materials Use and Storage

Currently, a wide range of on-site activities may involve the use and storage of hazardous materials. These activities are conducted by the Applicant, as well as various tenants and other entities (i.e., third party vendors) that use on-site facilities on a temporary basis. Certain on-site activities, such as movie and television production, operation of the theme park, restaurant cleaning, grounds maintenance, and support for facilities operation (i.e., air conditioning), involve the acquisition, use, storage and disposal of hazardous materials on a regular basis. No notable source of radioactive materials is used and stored at the Project Site. Incidental radioactive materials at the Project Site include minor amounts associated with lithium-source exit lights and with an on-site X-ray machine.

Generally, a majority of the hazardous materials usage and storage at the Project Site is associated with Studio Area and Entertainment Area operations, with lesser use and storage associated with operation of the Business Area.

Studio Area Operations

Facilities associated with the production area of studio operations, where hazardous materials are concentrated, include workshops (e.g., workshops in the HazMat Department/Bud Westmore Building – Building 4250), vehicle maintenance facilities (e.g., Building 5187 and the lower lot maintenance yard – Building 8166), and to a lesser degree, various attractions in the Studio Area that are associated with the theme park (such as *Earthquake*). The location of these facilities is shown in Figure 2-1.

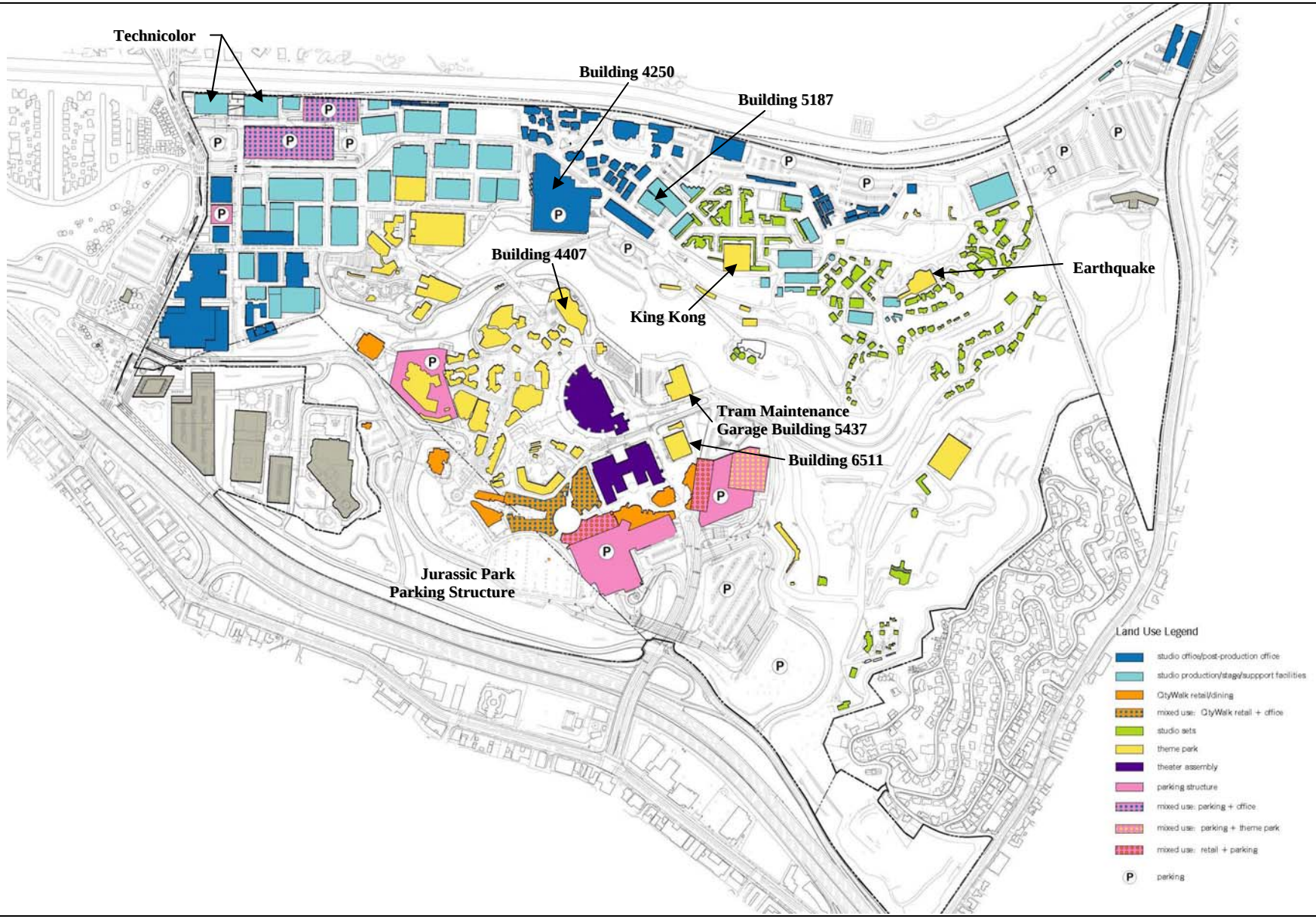
Although Building 4250 houses activities that accumulate and generate hazardous waste (i.e., paint, welding and plumbing shops), it is also the Applicant's designated location for "90-day storage" of all of the Applicant's hazardous waste. With the exception of the on-site tenant in the northern corner of Business Area portion of the Project Site (Technicolor), hazardous waste generated by on-site tenants and third-party vendors are also managed in Building 4250 prior to disposal by licensed contractors. Section 3.2.2 describes in detail hazardous waste management at the Project Site.

The types of hazardous materials typically stored and handled in Building 4250 include, but are not limited to, the following:[13]

- Petroleum-based oils, greases and fuels
- Adhesives and glues (including isocyanate polyether foam)
- Compressed gases (oxygen, carbon dioxide, acetylene, argon, and nitrogen)
- Cleaning products (e.g., ammonia, scouring powder, surfactants, bleach, and caustic cleaner)
- Aerosol spray paint
- Oil and water based paints[14]
- Various non-chlorinated and chlorinated solvents and finish strippers
- Small quantities of acids
- Refrigerants (i.e., Freon and Chlorodifluoromethane)
- Lead Acid Batteries

[13]NBC Universal, Environmental, Health & Safety; "Hazardous Materials State Reporting Forms", January 31, 2007.

[14] A majority of the paints currently used at the Applicant's paint shop are water-based.



Source: Rios Clementi Hale, 2010

NBC Universal Evolution Plan

Environmental Safety Technical Report

Location of Significant Hazardous Materials Storage

Figure 2-1

Hazardous materials used and stored at the two maintenance yards/garages (Building 5187 and to a lesser degree Building 8166) generally include:[15]

- Fuels and oil (in USTs)
- Small quantities of cleaning materials, paints, lubricants, coolants and solvent
- Compressed gases (i.e., oxygen and acetylene)
- Batteries

The attractions associated with the theme park (and their support facilities) located in the Studio Area of the Project Site use and store small quantities of hazardous materials. The hazardous materials are associated with the operation, maintenance and cleaning equipment of the attractions. In addition to the on-site storage and use of small quantities of household herbicides and pesticides, commercial applications of pest control materials occur periodically on-site by third-party pest control companies that are licensed by the State of California Department of Health Services and store their landscaping supplies off-site.

The Applicant's operations are in accordance with all applicable regulatory requirements. Hazardous materials frequently used in areas such as Building 4250 and vehicle maintenance yards/garages are stored in appropriate enclosures (flammable liquid storage cabinets where appropriate) and properly marked. Gas storage cylinders are stored with valve covers in place and restrained from movement. Stationary propane storage vessels are clearly labeled and protected by bollards.

Entertainment Area Operations

The Tram Maintenance Garage (Building 5437) is the main area in the Entertainment Area where hazardous materials are used and stored for theme park operations. The garage is located in the central portion of the property and is identified in Figure 2-1. The garage is responsible for all maintenance and fueling of the tram and theme park service vehicles used on-site. The types of hazardous materials typically stored in this facility include:

- Fuels and used oil
- Coolant (i.e., antifreeze)

[15]NBC Universal, Environmental, Health & Safety; "Hazardous Materials State Reporting Forms", January 31, 2007.

- Greases and solvents
- Paints and coatings
- Cleaning products and solutions
- Lead/Acid batteries
- Aerosol spray paints
- Compressed gases (i.e., oxygen, argon and propane)
- Small amounts of acid

As shown on Figure 2-1, other major hazardous material storage areas exist in the Entertainment Area and are associated with theme park operations. The other major hazardous storage areas (and associated materials generally stored at each location) include:

- Building 4407/Back to the Future Ride – theme park storage (i.e., lubricants, adhesives and sealants)
- Building 6511/Theme Park Technical Services – theme park paint storage
- Jurassic Park Parking Structure – CityWalk paint storage

Business Area Operations

Operations located in the Business Area of the Project Site do not typically use or store hazardous materials in the quantities or varieties as the facilities described above. Typical hazardous material inventories of the office buildings in this area may include fuel for boilers/generators, lubricating oils, and cleaning products. Most materials are typically stored in containers of 55 gallons or less. Some on-site tenant studio and motion picture processing uses in the Business Area use and store corrosives, irritants, oxidizers and solvents for production processes. These materials are currently stored in aboveground containers and within appropriate enclosures (e.g., flammable liquid storage cabinets), which are clearly marked. One such on-site tenant (Technicolor) operates a film production and processing facility located in the northern portion of the Business Area of the Project Site (4050 Lankershim Boulevard). Operations at Technicolor include full laboratory services such as motion picture film processing and film preservation and restoration. These services involve the use of a variety of chemicals and additives. For example, film processing consists of immersing the film in a series of chemical baths and washes, including the application of developer, which turns the latent image to metallic silver, a stop bath to stop the action of the developer, and fixer to make the image permanent. The precise procedure and mix of chemicals and additives used vary for different types processing.

Hazardous materials used at Technicolor include:

- Acids and Acidic Solutions
- Mixed Solvents (e.g., mixed flammable solvents, alcohols, acetone, etc.)
- Paint Solvents
- Halogenated Solvents (e.g., perchloroethylene, etc.)
- Used Oils
- Clarifier Sludge
- Specialty Chemicals (e.g., Color Developing Agent, etc.)
- Lead and Dry Cell Batteries
- Aerosol spray paints
- Small quantities of cleaning materials, paints, lubricants, coolants and solvent

Technicolor uses and stores these chemicals throughout their facility; however, the use and storage occur primarily in the following areas of the facility:

- Positive and Negative Solutions
- Positive and Negative Developing
- Solutions Plant 20 Tank Farm
- River Road Bulk Tank and Dry Chemical Storage Areas
- Liquid Chemical Storage Area

Technicolor does not store radioactive materials.

2.2.2.3.2 Hazardous Materials Management

The Applicant currently stores and uses hazardous materials in excess of the reporting thresholds for the Waters Bill. As such, the Applicant has developed an HMBP in compliance with the Waters Bill and with relevant provisions of SARA Title III, which is on file with the LACoFD and LAFD. This plan (referred to by the Applicant as the *Hazardous Materials State Reporting Forms*[16]) documents the Applicant's established procedures (a Contingency Plan) in addressing threatened or actual releases of hazardous materials or hazardous waste, and includes a regular

[16] NBC Universal, Environmental, Health & Safety; "Hazardous Materials State Reporting Forms", January 31, 2007.

program of employee training for hazardous materials handling and potential releases, and an inventory of hazardous materials used by the Applicant on the Project Site. Employee training under the HMBP includes chemical safety training, hazardous materials training, MSDSs training, Incident Command System training and hazardous waste safety training.

As part of the HMBP, the Applicant has established a team of employees responsible for emergency response that are trained per regulatory requirements. The Applicant's Emergency Response Team would be responsible for initial response. If the Applicant determines that on-site resources are insufficient to handle the response, the CUPA (i.e., LACoFD) and OES will be notified. Outside contractors have been identified and are on call in an emergency to augment on-site response capability.

The CUPA could draw resources from the LACoFD (which could consist of fire response personnel throughout the County or members of the LACoFD Hazardous Materials Unit), as well as the LAFD. Based on the type and magnitude of the emergency, the Applicant would notify the National Response Center.

In addition to the Contingency Plan described above, the Applicant has an Emergency Response Plan that details potential emergencies (other than hazardous releases) and identifies appropriate emergency procedures in the event of such emergency, including contacts with appropriate emergency response agencies.

Various amounts of solid, liquid and gaseous forms of hazardous materials are stored and used at numerous locations at the Project Site. No notable sources of radioactive materials are stored, handled or disposed of on-site. Incidential radioactive materials on-site include minor amounts associated with lithium-source exit lights and with an on-site X-ray machine. The locations of the areas storing and using higher volumes of hazardous materials are detailed above in Section 2.2.2.3.1 and are shown in Figure 2-1. Generally, hazardous materials use and storage at the Project Site are concentrated at facilities within the Studio Area (associated with studio operations), and Entertainment Area (associated mostly with theme park operations). A majority of the hazardous materials used and stored in the Business Area are associated with the on-site tenant in that area (Technicolor).

Technicolor also currently handles hazardous materials in excess of Waters Bill reporting requirements, and thus has also prepared an HMBP in compliance with SARA Title III and the Waters Bill. The tenant's HMBP, which was revised in March 2005, documents procedures addressing on-site threatened or actual releases of hazardous materials or hazardous waste; identifies the staff responsible for notifying the Fire Department in the event of an accidental release; identifies the staff responsible for release response; describes alarm systems and evacuation procedures; identifies emergency medical facilities; describes preventative measures, such as cabinet storage, safety equipment, and training and describes release response and abatement procedures. Technicolor has a Consolidated Contingency Plan that

addresses in detail both emergency and non-emergency incidents and outlines the procedures for appropriately responding to an emergency.

The Applicant, as well as various tenants and third party vendors do not currently utilize the types and/or quantities of any regulated hazardous materials that would require registration with the local administering agency, the LACoFD and/or LAFD or require development of an RMP.

In compliance with federal and state OSHA training requirements, the Applicant's Environmental Health and Safety Department has developed and implemented a hazard communication program, known on-site as the Chemical Management Plan, which provides employees with appropriate information regarding the safe handling, use, storage and disposal of hazardous materials. As part of this program, the Applicant has compiled inventories of MSDSs for hazardous materials present at its operations which identify the types and handling requirements of hazardous materials used in given areas, and has made them available for employees at various work sites. The Applicant has also conducted appropriate employee hazardous materials handling, training and medical surveillance. Additionally, the Applicant has trained a team of employees to appropriate OSHA-defined levels to remediate any hazardous materials accidental releases, has retained on-call contractors to provide additional emergency response, if necessary, and has in place a written hazard communication program which includes:

- Obtaining manufacturer MSDSs for all products handled, used or stored on-site which contain hazardous materials;
- Maintaining these records in the specific area where the materials are used and a master record in the Environment, Health & Safety office;
- Providing for the proper labeling of all hazardous materials containers; and
- Providing employees with general and specific training necessary for handling and use of hazardous materials in their work areas.
- In addition, the Applicant has a specially trained Hazardous Materials Team that is responsible for containing and remediating all accidental releases on the property.

On-site operations currently utilize hazardous materials that are included on the Proposition 65 list and could potentially expose individuals to such materials. As a result, these operations are subject to the requirements of Proposition 65. The Applicant complies with Proposition 65 reporting requirements. Moreover, the Applicant posts notices, as required, providing clear and reasonable warning to the public and to employees in areas where hazardous materials are stored and used. In addition, as part of the Applicant's public notice program, posting includes placement of notices at all entrances.

At the time of this report, applicable hazardous materials used in the Applicant's on-site operations were stored in accordance with regulatory requirements of the UFC. There are no outstanding violations (i.e., NOV) issued by the LACoFD or LAFD associated with the Applicant's operations. However, the EDR report performed in association with the proposed Project indicated that there is currently a NOV to comply (dated July 23, 1998) regarding leaking USTs at Technicolor's facility in the northern portion of the Business Area.[17] The Technicolor tanks were removed in the mid-1990's and the tanks were closed with regulatory oversight by the LAFD. The remedial action (VOC clean-up) is still active and under LARWQCB oversight.

2.2.2.4 Underground Storage Tanks

2.2.2.4.1 USTs Located On-site

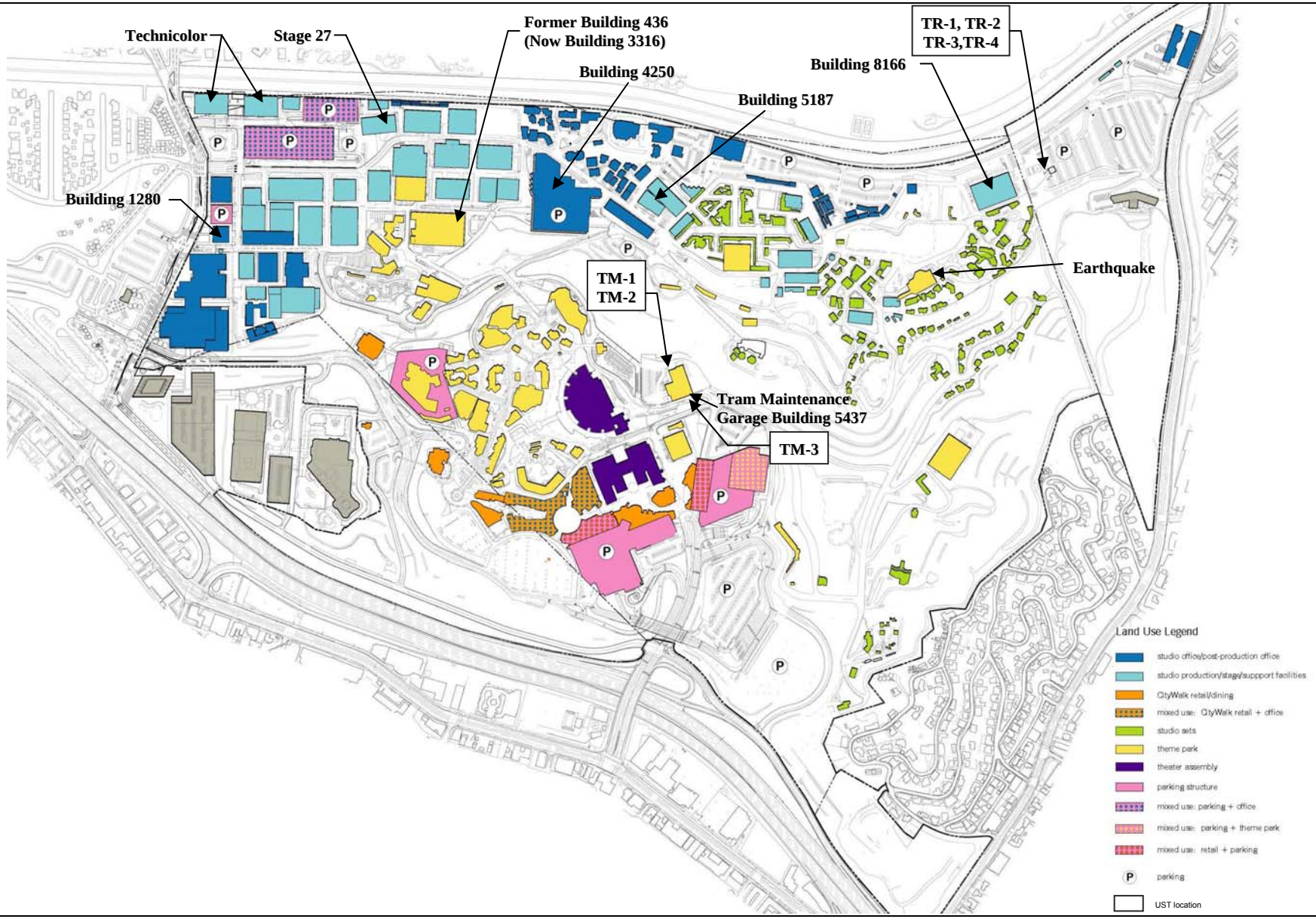
Based on information from the Applicant, there are seven USTs owned and operated by the Applicant. Four of these USTs are located in the Studio Area (near Building 8166) and three are in the Entertainment Area (at the Tram Maintenance Garage, principally associated with fuel and motor oil dispensing and vehicle maintenance). The Applicant's USTs range in size from 1,000 to 20,000 gallons. All of the currently active USTs contain petroleum-based fuels or motor oil. Table 2-2 lists the 7 USTs and Figure 2-2 identifies their locations. The combined UST capacity is approximately 85,000 gallons. No other tenant or third-party vendor maintains USTs on the Project Site.

Table 2-2
Underground Storage Tank Inventory

Tank ID#	Capacity (gal.)	Contents	Use	Status	Jurisdiction
TM-1	12,000	Diesel	Garage	A/C	County
TM-2	10,000	Unleaded	Garage	A/C	County
TM-3	10,000	Diesel	Garage	A/C	County
TR-1 1989	20,000	Unleaded	Operation/ Maintenance	A/C	City
TR-2 1989	20,000	Unleaded	Operation/ Maintenance	A/C	City
TR-3 1989	12,000	Diesel	Operation/ Maintenance	A/C	City
TR-4 1989	1,000	Motor Oil	Operation/ Maintenance	A/C	City

Legend:
gal. = gallons
A = Active
C = In Compliance
County = County of Los Angeles
City = City of Los Angeles

[17] Environmental Data Resources, Inc. "The EDR Radius Map with GeoCheck for Universal Studios", August 29, 2006.



Source: Rios Clementi Hale, 2010

NBC Universal Evolution Plan

Environmental Safety Technical Report

Existing Underground Storage Tank Locations

Figure 2-2

Applicable laws require that all USTs be registered with the local enforcement agency; in the case of Universal City, the local enforcement agencies are the LAFD within the City portion of the Project Site, and the LACDPW for the County portion of the Project Site. The Applicant has indicated that the secondary containment systems for active USTs are tested triennially and have been shown not to be leaking.

All USTs have continuous interstitial monitoring systems, which are tested and certified annually. Specific USTs, as required by various regulations, undergo other tests annually (i.e., Static Pressure Decay tests, and Dynamic Back Pressure tests). The secondary containment systems for all USTs and associated piping have passed all testing requirements as required by SB 989. [18]

2.2.2.4.2 Releases Associated with On-site USTs

According to a records search conducted for the Project Site (discussed in Section 2.2.2.1) and information from the Applicant, the following known releases from USTs were identified on the Project Site:

In 1984 and 1985, the Applicant removed seven USTs near Stage 27 located along the northern boundary of the Project Site. The tanks—which were used to store unleaded gasoline, lacquer thinner, and paint thinner—ranged in size from 250 to 6,000 gallons. In 1987, a 4,000 gallon diesel UST was removed from the same area. Localized soil and groundwater contamination were noted in the area. A groundwater remediation system was installed and operated until 1995; groundwater monitoring performed after remediation revealed the absence of significant groundwater impacts at the Stage 27 area (for details on the groundwater remediation associated with the Stage 27 area, refer to the Groundwater Technical Report for the Project). On July 20, 1996, the LARWQCB issued a closure letter for the UST operation at Stage 27.

In 1986, a 500 gallon paint thinner UST at the former ET Tour Attraction area (Building 436) was closed in-place. The tank was removed during the construction of the ET Tour Attraction in 1990. All associated contaminated soil found near the tank was removed and confirmation soil sampling indicated the absence of significant soil impacts after the removal.

In 1988, six USTs, ranging in size from 500 to 15,000 gallons, were removed from the Building 5187 area. Prior to removal, the tanks were used to store unleaded and leaded gasoline, diesel, used oils, and motor oil. The final closure report indicates that contaminated soil was removed from most areas; however, a small area of soil with slightly elevated diesel fuel concentration remains since removing it would interfere with existing structures. The extent of the diesel fuel impacted soil was defined and did not extend a substantial distance. The final closure report detected no significant soil impacts at the location. In 1994, testing performed on groundwater monitoring wells down-gradient of these tanks revealed the absence of groundwater impacts

[18] Universal Studios, LLC; "Universal Studios Spill Prevention Control and Countermeasures (SPCC) Plan", October 2003.

related to these tanks. The LACDPW files for these tanks contain a hand-written note that says the tanks were "referred to state."

In 1995, an 1,000 gallon diesel UST was removed from the Jurassic Park area. Confirmation soil sampling indicated the absence of significant soil impacts after the removal.

The EDR records search included a description of a gasoline release at the Tram Maintenance Garage, which was detected in 1996 during tank closure. However, according to a UST closure report dated September 1997 that details the tank removal and sampling activities conducted at the Tram Maintenance Area, no leak was detected during the removal of four USTs from the area between 1996 and 1997. Analytical results of the confirmation samples indicated that no significant soil impact was found. Slightly elevated concentrations of petroleum hydrocarbons were detected in shallow soil samples collected near fuel dispensers and associated pipelines. [19] The case is currently in the LUST database with a "pollution characterization" status.

In 1996, two 2,000 gallon USTs – which were used to store acetone and paint thinner - were removed from Building 4250 and one 5,000 gallon kerosene UST was closed in-place at Building 1280. Confirmation soil sampling indicated the absence of significant soil impacts in the areas. Results from groundwater monitoring wells adjacent to the Building 1280 tank (1989) and from former groundwater monitoring wells 400 feet down-gradient to the Building 4250 tank (1994) indicated an absence of groundwater impacts from the tanks.

In 2003, an emergency generator UST was removed from the area of the former ET Tour Attraction (Building 436). Sampling detected low concentrations of benzene in the excavation sidewall and the associated impacted soil was removed. Confirmation soil samples indicated the absence of soil impacts after soil removal. The closure report is still being reviewed by LACDPW.

In 2005, a rinsewater UST for the spray booth at the Tram Maintenance Garage was removed. Soil and groundwater samples were not required by LACDPW. The closure report is still being reviewed by LACDPW.

All open and closed UST case closures associated with the Applicant's portion of the Project Site are combined under one case number, R-00211, which will remain open until a no further action is granted by the LARWQCB for the Project Site as a whole.[20]

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[19] Universal Studios, Inc. letter report to Mr. David A. Bacharowski, LARWQCB; "Underground Storage Tank (UST) Information Request, Universal Studio, Inc. (ID #R-00211), 3900 Lankershim Boulevard, Universal City, California", November 3, 2000.

[20] LARWQCB letter to Mr. Don Turner, Universal Studios; "Underground Storage Tanks Program – Technical Report, Universal Studios Tram Building, 3900 Lankershim Boulevard, Universal City (ID #R-00211)", October 6, 2000.

Prior to May 2005, Technicolor, the on-site tenant in the northern portion of the Business Area, maintained several USTs. During the removal of USTs in the mid-1990's, solvent leakage from one or more USTs appears to have occurred, possibly contaminating soil and shallow or perched groundwater. A soil remediation program was implemented using vapor extraction. Concurrently, a groundwater monitoring program was implemented to investigate and characterize groundwater conditions in the area potentially affected by contamination (refer to the Groundwater Technical Report for the Project for additional details on the ongoing groundwater monitoring). Though active soil remediation ceased in July 2004 (per LARWQCB request), groundwater monitoring continues. As of May 2005, all USTs at Technicolor's facility have been removed. No contamination was found during removal of the last two USTs in 2005.[21]

2.2.2.5 Aboveground Storage Tanks

The Applicant currently operates 198 ASTs on the Project Site with a total capacity of approximately 54,802 gallons. Of the 198 ASTs, approximately 65 contain diesel fuel, hydraulic oil, propane and other materials that are gaseous at standard temperature and pressure, muriatic acid, and fog fluid. The remainder of the ASTs are related to transformers, elevators, and food grease storage. The active tanks range widely in size from 45 gallons to 11,000 gallons in capacity; most of the tanks have a capacity of less than 1,150 gallons. Of the ASTs covered by the CWA, the largest is 11,000 gallons. Table 2-3 lists the ASTs operated by the Applicant.

Operations of the on-site tenant (Technicolor) in the northern portion of the Business Area requires the storage of hazardous materials in ASTs. Technicolor currently operates eight ASTs and approximately 170 aboveground processing tanks. Following is a breakdown of the ASTs operated by Technicolor and their contents:

- Three (3) ASTs containing sulfuric acid – 1,264 gallons total
- One (1) AST containing ammonium hydroxide – 350 gallons
- One (1) AST containing ammonium thiosulfate – 8,000 gallons
- Two (2) ASTs containing perchloroethylene – 2,000 gallons total
- One (1) AST containing acetic acid – 6,000 gallons

All of the raw material ASTs are in secondary containment that is constructed of concrete and epoxy, except for the perchloroethylene tanks, which have a stainless steel lining.[22]

[21] Information based on correspondence with Mr. Rick Brown, Technicolor, November 6, 2006.

[22] Ibid.

Table 2-3
Aboveground Storage Tank Inventory

Tank #	Location	Contents	Capacity (gal.)	Secondary Containment Type
1	Back To The Future Hydraulic Oil Tank	Mineral Based A.W. 46 Hydraulic Oil	2057	Building/Room
2	Back To The Future Drum Storage	55 Gal. Drums - Hydraulic Oil (20 ea.)	1100	Building/Room
3	Back To The Future Drum Storage	55 Gal. Drums - Glycol Based Fog Fluid (10 ea.)	550	Building/Room
4	Back To The Future Emer. Gen.	Diesel Fuel	157	Double Wall
5	Back To The Future LN2 Tank	Liquid Nitrogen	5000	N/A
6	Back To The Future Used Oil Tank	Waste Hydraulic Oil	748	Building/Room
7	Back Lot Gen.	Diesel Fuel	224	Double Wall
8	Bldg. 1220 Emer. Gen.	Diesel Fuel	75	Double Wall
9	Bldg. 1280 Fire Pump Room	Diesel Fuel	269	Berm
10	Bldg. 1360 Emer. Gen.	Diesel Fuel	648	Double Wall
11	Bldg. 2160 Emer. Gen.	Diesel Fuel	928	Double Wall
12	Bldg. 2160 Fire Pump Room	Diesel Fuel	344	Berm/Curb
13	Bldg. 2282 Emer. Gen.	Diesel Fuel	636	Berm
14	Bldg. 4250 (Bud Westermore) Gen.	Diesel Fuel	60	Double Wall
15	Bldg. 9128 (601) Emer. Gen.	Diesel Fuel	353	Double Wall
16	Cash Vault Emer. Gen.	Diesel Fuel	60	Double Wall
17	Cinema Emer. Gen.	Diesel Fuel	45	N/A
18	Collapsing Bridge H.P.U.	Mineral Based A.W. 46 Hydraulic Oil	169	Building/Curb
19	Curious George Emer. Gen.	Diesel Fuel	235	Double Wall
20	Earthquake Drum Storage	55 Gal. Drums - Mineral Based A.W. 46 Hydraulic Oil (8 ea.)	440	Berm/Curb
21	Earthquake Hydraulic Tank	Mineral Based A.W. 46 Hydraulic Oil	464	Berm/Curb
22	Earthquake Large Slab Hydraulic Tank	Mineral Based A.W. 46 Hydraulic Oil	165	Double Wall
23	Earthquake Train Hydraulic Tank	Mineral Based A.W. 46 Hydraulic Oil	53	Double Wall
24	Fire Station Emer. Gen.	Diesel Fuel	262	Double Wall
25	Jurassic Park 20 Ft. Hydraulic Unit #1	A.W. 46 Hydraulic Oil	494	Building/Room

Tank #	Location	Contents	Capacity (gal.)	Secondary Containment Type
26	Jurassic Park 20 Ft. Hydraulic Unit #2	A.W. 46 Hydraulic Oil	494	Building/Room
27	Jurassic Park CO2 Tank #1	Liquid Carbonic Acid	300	N/A
28	Jurassic Park CO2 Tank #2	Liquid Carbonic Acid	300	N/A
29	Jurassic Park Emer. Gen.	Diesel Fuel	314	Double Wall
30	Jurassic Park Emer. Gen. (G-11)	Diesel Fuel	Unknown	N/A
31	Jurassic Park Emer. Gen. (G-12)	Diesel Fuel	187	Double Wall
32	Jurassic Park Hydraulic Unit #1	A.W. 46 Hydraulic Oil	494	Building/Room
33	Jurassic Park Hydraulic Unit #2	A.W. 46 Hydraulic Oil	494	Building/Room
34	Jurassic Park Hydraulic Unit #3	A.W. 46 Hydraulic Oil	494	Building/Room
35	Jurassic Park Jeep Gag H.P.U.	A.W. 46 Hydraulic Oil	187	Double Wall
36	Jurassic Park Oil/Water Separator	Waste Hydraulic Oil and Water	494	Building/Room
37	Jurassic Park Propane Tank	Liquid Propane	1150	N/A
38	Jaws Hydraulic Tank	Mineral Based A.W. 46 Hydraulic Oil	241	Pit
39	Jaws Propane Tank	Liquid Propane	1100	N/A
40	Mummy's LN2 Tank	Liquid Nitrogen	5000	N/A
41	Mummy's Revenge Gen.	Diesel Fuel	643	Double Wall
42	Sam Goody Emer. Gen. #1	Diesel Fuel	75	Double Wall
43	Sam Goody Emer. Gen. #2	Diesel Fuel	142	Double Wall
44	Sam Goody Emer. Gen. #3	Diesel Fuel	98	Double Wall
45	Starway Emer. Gen.	Diesel Fuel	478	Double Wall
46	T-2 Drum Storage	Mineral Based A.W. 46 Hydraulic Oil	110	Building/Room
47	T-2 Emer. Gen.	Diesel Fuel	22	Double Wall
48	T-2 H.P.U. Tank	Mineral Based A.W. 46 Hydraulic Oil	427	Building/Room
49	T-2 LN2 Tank	Liquid Nitrogen	11000	N/A
50	T-2 Used Oil Tank	Waste Hydraulic Oil and Water	300	Building/Room
51	T-2 Water Treatment Room	Muriatic Acid	30	Concrete Berm
52	Tram Garage (Propane Tank)	Liquid Propane	500	N/A

Tank #	Location	Contents	Capacity (gal.)	Secondary Containment Type
53	Tram Garage Lube Oil Storage	55 Gal. Drums - Assorted Lube Oils (20 ea.)	1100	Room/Curb
54	Tram Garage Propane Storage	Liquid Propane (20 ea.)	10 & 15 Gal. Tanks	N/A
55	Transportation Emer. Gen.	Diesel Fuel	97	Double Wall
56	Transportation Propane Tank #1	Liquid Propane	1150	N/A
57	Transportation Propane Tank #2	Liquid Propane	1150	N/A
58	Universal Sign Emer. Gen.	Diesel Fuel	37	N/A
59	Waterworld Chlorine Tank	Liquid Chlorine (Sodium Hypochlorite)	500	Building/Room
60	Waterworld Drum Storage	55 Gal. Drums - Mineral Based A.W. 46 Hydraulic Oil (3 ea.)	165	Berm/Curb
61	Waterworld Emer. Gen.	Diesel Fuel	142	Double Wall
62	Waterworld Propane Tank #1	Liquid Propane	1150	N/A
63	Waterworld Propane Tank #2	Liquid Propane	1150	N/A
64	Waterworld Sea Plane H.P.U.	Mineral Based A.W. 46 Hydraulic Oil	78	Berm/Curb
65	Y2K Emer. Gen.	Diesel Fuel	643	Double Wall
66 - 198	Various ASTs for transformers, elevators, and food grease containers	Various (mostly Studio and Entertainment Areas)	Transformers: 100 – 2770 Elevators: 145 Food Grease Storage: 55 - 330	Transformers: various (mostly sump, berm/bldg. or none) Elevators: various (mostly none/bldg. or room) Food Grease Storage: various (mostly none or room/bldg.)

Small quantities of petroleum products are stored in drums at various locations throughout the Project Site. Most theme park attractions have their own satellite storage areas for oil and petroleum products. Currently, the combined capacity of ASTs used for oil and petroleum products in the Studio and Entertainment Areas of the Project Site is approximately 28,200 gallons.[23] All of the ASTs containing motor oil or waste hydraulic oil have secondary containment to contain spills. As required by 40 CFR 112, the Applicant has prepared and maintains a SPCC Plan that describes the storage and usage of oil and petroleum products used in the Applicant's operations at the Project Site. As described under Regulatory Framework, above, the intent of the SPCC Plan is to minimize the potential for accidental release of oil or petroleum products into or upon the navigable waters of the United States or adjoining shoreline. The Project Site is located in close vicinity of the LAFCC/Los Angeles River. The Applicant is not aware of any reportable release to navigable waters from tanks on-site.

As detailed in the SPCC Plan, the Applicant's facilities include containment and/or diversionary structures for the prevention of accidental discharges. Containment and/or diversionary structures include, as practicable:

- Dikes and berms sufficiently impervious to contain released materials;
- Absorbent materials;
- Containment barrels and drums;
- Secondary containment structures designed to contain liquids for minimum of 72 hours; and/or
- Doubled walled tanks.

Engineering controls are also used and include:

- Liquid level (high and low) pump cutoff devices;
- Liquid level sensing devices;
- Liquid level control devices on all hydraulic oil tanks;
- Interstitial leak detectors; and/or
- Leak detection low-level alarms that are audible and visible.

The SPCC Plan also includes an Oil Release Contingency Plan that addresses release control and clean-up measures that follows the provisions of 40 CFR 109. The Oil

[23] Universal Studios, LLC; "Universal Studios Spill Prevention Control and Countermeasures (SPCC) Plan", October 2003.

Release Contingency Plan includes a commitment of manpower, equipment, and materials required to contain and control releases from areas without containment.

The ASTs are visually inspected on a regular basis for any sign of leaks, and if leaks are found they are corrected promptly. All ASTs, foundations, and tank supports are visually inspected on a semi-annual basis by the Applicant's Environmental, Health & Safety Department and on-site Emergency Response Team staff. If visual inspection indicates that there may be potential issues, corrective measures and/or additional inspections/testing are performed. [24]

2.3 Impact Analysis

2.3.1 Methodology

The analysis of the potential impacts regarding hazardous materials management was based on-site evaluations, plans and information from the Applicant.

2.3.2 Significance Thresholds

The *L.A. CEQA Thresholds Guide* (page F.1-3) states that a determination of significance relative to risk of upset/emergency preparedness shall be made on a case-by-case basis, considering the following factors:

- The regulatory framework;
- The probable frequency and severity of consequences to people or property as a result of a potential accidental release or explosion of a hazardous substance;
- The degree to which the project may require a new, or interfere with an existing, emergency response or evacuation plan, and the severity of the consequences; and
- The degree to which project design will reduce the frequency or severity of a potential accidental release or explosion of a hazardous substance.

Additionally, the *L.A. CEQA Thresholds Guide* (starting on page F.2-3) states that a determination of significance relative to human health hazards shall be made on a case-by-case basis, considering the following factors:

- The regulatory framework for the health hazard;
- The probable frequency and severity of consequences to people from exposure to the health hazard; and
- The degree to which project design will reduce the frequency of exposure or severity of consequences of exposure to the health hazard.

[24] Universal Studios, LLC; "Universal Studios Spill Prevention Control and Countermeasures (SPCC) Plan", October 2003.

Based on these factors the Project would have a significant impact if:

- The Project would expose people[25] to substantial risk resulting from the release or explosion of a hazardous material, or from exposure to a health hazard, in excess of regulatory standards.

2.3.3 Project Design Features

As described in Section 2.2.2.3.2, above, the Applicant currently has comprehensive policies and programs specifically related to environmental safety that will continue to be implemented in association with the Project. As is currently the Applicant's practice, all hazardous materials on the Project Site will be acquired, handled, used, stored, and disposed of in accordance with all applicable federal, state and local requirements. Monitoring of the Applicant's hazardous materials management will be conducted by the LACoFD and/or, as appropriate, the LAFD, and other applicable regulatory authorities, as detailed in Section 2.2.2.3.2. These policies and programs will affect the design, construction and operation of the proposed uses.

As detailed in Section 1.4.1, the majority of the proposed development in the Mixed-Use Residential Area would be residential, along with community- and neighborhood-serving retail uses. The design and construction of the proposed uses in the Mixed-Use Residential Area would be in accordance with applicable federal, state, and local regulations related to environmental safety.

As described in Section 2.2.1.1, hazardous materials management laws and regulations include emergency response planning. In addition to a Contingency Plan, the Applicant has an Emergency Response Plan that details potential emergencies (other than hazardous releases) and identifies appropriate emergency procedures in the event of such emergency, including contacts with appropriate emergency response agencies. Existing emergency response and evacuation plans would be updated or new plans created, as appropriate, to include operation of the Project.

In addition, as described above in Section 2.2.2.2.4, Phase II ESAs completed for the eastern portion of the Project Site identified concentrations of metals and PCBs at certain soil sampling locations that exceeded residential CHHSLs and/or residential PRGs. These results are being evaluated by DTSC, pursuant to DTSC's Voluntary Cleanup Program, to further assess whether those concentrations pose a significant risk to human health or the environment. Should it be determined that the nature, location, and concentrations of those materials pose an unacceptable risk, various options to reduce the risk to an acceptable level will be identified under DTSC oversight. Potential options that may be considered could include removal (excavation), treatment (*in-situ* or *ex-situ*), or other measures, as appropriate.

[25] For the purposes of this report, "people" refers to any person, such as workers, park attendees, tenants, and future residents and tenants, which would be at the Project Site.

No additional or specific design features related to environmental safety are proposed.

2.3.4 Project Impacts

2.3.4.1 Construction

During on-site grading and building construction, fuel and oils associated with construction equipment, as well as coatings, paints, adhesives, and caustic or acidic cleaners, could be used, handled and stored on the Project Site. The use, handling and storage of these materials could increase the opportunity for hazardous materials releases and, subsequently, the exposure of people and the environment to hazardous materials. As is currently the Applicant's practice, compliance with all applicable federal, state and local requirements concerning the use, handling and storage of hazardous materials, as detailed in Section 2.2.2.3.2, will effectively reduce the potential for the construction of the Project to expose people (i.e., workers, park attendees, and the occupants of the initial phases associated with the development of the Mixed-Use Residential Area) to substantial risk resulting from the release or explosion of a hazardous material, or from exposure to a health hazard, in excess of regulatory standards.

In addition, Project-related grading could uncover or disturb existing known and unknown USTs, which could lead to soil and/or groundwater impacts and the potential exposure of people and the environment to hazardous materials. As described under Section 2.3.3 above, if USTs or impacted soils are encountered, existing comprehensive policies and programs specifically related to environmental safety will continue to be implemented. For example, if USTs are encountered, prior to removal, applicable permits will be obtained from the LACDPW. During tank removals, construction contractors are required in their contract to continuously monitor excavations with an organic vapor analyzer in areas with potential for impacted soils. Soils that exhibit elevated readings, odor or visual evidence of contamination will be managed as required by appropriate regulatory agencies. These agencies could require that the soils be sampled for laboratory analysis, segregated and stored according to SCAQMD regulations, and disposed of in accordance with California Title 22 requirements. Hence, compliance with existing permitting, notification, and worker safety regulations and programs (also detailed in Section 2.2.2.3.2) will ensure construction worker safety at, or near, sites with potential contamination. Adherence to these guidelines would serve to effectively avoid worker exposure to hazardous materials that may be encountered on-site during construction activities.

In the event that contaminated soils are unexpectedly encountered, or construction occurs in areas of known contamination, the soils would be excavated, treated or disposed of to the satisfaction of the applicable regulatory agencies, which could include LAFD, LACDPW, LARWQCB, and/or CalEPA DTSC.

Based on the above, there is the potential for on-site grading to increase the use, handling and storage of hazardous materials, and encounter contaminated soil; however, compliance with existing regulations and plans at the Project Site during construction of the Project, and consultation with DTSC, pursuant to DTSC's Voluntary Cleanup Program, as appropriate, would prevent exposure of people to substantial risk resulting from the release of a hazardous material, or from exposure to a health hazard, in excess of regulatory standards. In addition, with implementation of mitigation specific to the potential discovery of contaminated soil during construction excavation and grading activities, potential hazardous materials impacts during construction would be minimized further. Therefore, no significant impact is anticipated.

Construction of the Project could temporarily interfere with local and on-site emergency response. Local streets adjacent to the Project Site would be used for construction traffic; however, construction traffic would conform to all traffic work plan and access standards to allow adequate emergency access. Construction within the Business, Entertainment, and Studio Areas would be intermittent, while construction within the Mixed-Use Residential Area is anticipated to be continuous over a shorter period. Implementation of traffic work plans and access standards would reduce the potential for the impacts on emergency response during construction of the Project, including reducing the potential for impacts to the proposed residential development during the construction of the Mixed-Use Residential Area. Therefore, construction of the Project is not anticipated to significantly impair implementation of or physically interfere with any adopted or on-site emergency response or evacuation plans or a local, state, or federal agency's emergency evacuation plan.

2.3.4.2 Operation

Hazardous Materials Management

The expansion of the Applicant's operations has the potential to increase the acquisition, use, handling and storage of hazardous materials on-site. It is likely that both the number of hazardous materials users, and the quantity of hazardous materials being used, would increase. New users of hazardous materials, if any, would likely be located within the Entertainment Area. Existing uses and activities which currently use hazardous materials on the Project Site could also be expanded and intensified, such as theme park, movie and television production, set making, and general maintenance/cleaning. Many of the proposed operations are similar to those operations occurring presently on-site and would most likely not involve the use of large quantities of substantially different types of materials (i.e., fuels, paints, lubricants, etc.) than those which currently exist. Expansion of entertainment uses could include the development of new attractions and thus increase the use of materials such as solvents, hydraulic oils and cleaning products, and possibly explosives if new attractions include pyrotechnics, and could increase tram tour operations and hence the use of materials such as fuels, greases, paints, solvents and cleaning solutions. Expansion of hotel and office uses could increase the use of fuels,

compressed carbon dioxide, refrigerants, cleaning products and liquid hypochlorite needed for operations. The addition of residential uses and community- and neighborhood-serving retail uses in the Mixed-Use Residential Area are not anticipated to notably increase the use of hazardous materials.

Hazardous materials stored and used on-site by the Applicant, as described above, are currently under the jurisdiction of the LACoFD, by agreement with the LAFD. The Applicant's existing hazardous materials management system (HMBP, hazardous materials inventory, and hazard communication program), which includes on-site tenants (with the exception of Technicolor, which has its own hazardous materials management system), and third-party vendors, must be maintained and updated annually by the Applicant, as necessary, to include any additional hazardous materials requiring use, handling, storage or disposal under the Project, and must be submitted to the LACoFD, and/or the LAFD, as applicable, for review. In addition, the on-site tenant Technicolor must generate and annually update its HMBP, including hazardous materials inventories, as appropriate, per the requirements of SARA Title III and the Waters Bill. Updated information incorporated into the HMBPs includes the following:

- Activity descriptions and certification by the owner/operator;
- Permit information and information relating to the storage of hazardous materials at various locations on-site;
- Identification of personnel responsible for notifying agencies of threatened or actual hazardous materials releases and descriptions of operating procedures in the event of a hazardous materials release or threatened release; and
- Descriptions of employee safety training relating to hazardous waste management and hazardous materials releases/threatened releases per OSHA and Cal/OSHA requirements.

The Applicant, its tenants, and third-party vendors must maintain and update any existing required RMPs, as appropriate, in conformance with the La Follette Bill. Should the Applicant, tenants, or third-party vendors develop processes in the future which utilize hazardous materials in excess of regulatory thresholds, then RMPs for these processes must be prepared by such party and submitted to the LACoFD, and/or the LAFD, as appropriate, for review, approval and filling.

As is currently the Applicant’s practice, all hazardous materials on the Project Site will be acquired, handled, used, stored, and disposed of in accordance with all applicable federal, state and local requirements. Monitoring of the Applicant's hazardous materials management will be conducted by the LACoFD and/or, as appropriate, the LAFD, and other applicable regulatory authorities, as detailed in Section 2.2.2.3.2.

As with any business in California, the Applicant, its tenants and third-party vendors are subject to all applicable OSHA and Cal/OSHA training and informational requirements concerning hazardous materials, including the following (as appropriate, depending on the specific nature and characteristics of the business activity):

- Hazardous materials training for on-site employees who are involved with the use, handling and storage of hazardous materials;
- Hazardous materials education to on-site employees who work in the vicinity of such materials;
- Collection and maintenance of MSDSs from hazardous materials manufacturers which identify the types and handling requirements of hazardous materials in given areas; and
- Creation and training of a team of on-site employees to perform hazardous materials accidental release responses.
- Development and maintenance of an IIPP to address the use of additional hazardous materials.

As is currently required, the Applicant will include provisions in all new agreements with contractors/operators/tenants that require continuous compliance with all applicable local, state and federal laws and regulations relating to environmental protection and the management of hazardous materials.

The Applicant will continue to comply, and require its tenants, and third-party vendors to comply, with applicable Proposition 65 posting and reporting requirements.

Operation of the Project could increase the opportunity for hazardous materials releases and, subsequently, the exposure of people and the environment to hazardous materials. The Applicant has in-house staff trained and designated to respond to accidental releases of hazardous materials associated with the acquisition, use, storage and handling of hazardous materials. Also, the Applicant has professional hazardous materials response companies on-call should a release occur at a time when appropriate staff are not available or the magnitude of the release is such that it cannot be handled internally.

With continued implementation of hazardous materials management at the Project Site (by the Applicant and its tenants and third-party vendors), in accordance with all applicable local, state and federal laws and regulations relating to environmental protection and the management of hazardous materials, as described through Section 2, operation of the Project is expected to be consistent with the goals, policies, and objectives of the City and County General Plan Safety Elements.

Underground Storage Tanks

Expanded operations on the Project Site could require the installation and operation of additional USTs to accommodate increased hazardous materials demand. These additional USTs would be expected to contain hazardous materials similar to those utilized in existing studio/entertainment/business operations on the Project Site. This increase in the number of USTs on-site could potentially increase the potential for accidental releases and subsequent impacts to soil, surface water, and groundwater, as well as the potential for environmental and human exposure to hazardous materials.[26] All new USTs installed at the Project Site would be required to be installed in accordance with federal, state and local laws. Continued compliance with these laws will minimize impacts to human health and the environment associated with USTs by ensuring that new tanks and piping are of double-wall or other appropriate construction which includes primary and secondary containment, automatic leak detection, and spill and overfill prevention systems. A monitoring program is also required including a written monitoring procedure and a response plan. Depending on their location on-site, any new USTs would be under the jurisdiction of the LACDPW or the LAFD.

Plans for all new UST installations, and for post-construction activities, monitoring and response, will be submitted to the LACDPW or the LAFD, as applicable, for review and approval. As the Project will be based in areas under jurisdiction of the LACDPW and the LAFD, these agencies will oversee compliance with these construction standards and subsequent post-construction requirements.

Aboveground Storage Tanks

Expanded operations on the Project Site could require the installation and operation of additional ASTs for storage of motor oil, vegetable oil, propane, and other substances. This increase in the number of ASTs on-site could potentially increase the potential for accidental releases and subsequent impacts to soil and surface water, as well as the potential for environmental and human exposure to hazardous materials. New AST installations on the Project Site by the Applicant, tenants or third-party vendors must conform to applicable regulatory requirements. The Applicant's biennial report will be revised to incorporate any new ASTs installed by the Applicant. In addition, the Applicant's SPCC would be updated to address any future ASTs. Compliance with these laws will minimize impacts to human health and the environment associated with ASTs by ensuring that new tanks include secondary containment, as required.

[26] The potential for surface water and groundwater contamination is addressed in two separate reports – Surface Water Quality Technical Report and Groundwater Technical Report, respectively.

Summary

In summary, operation of the Project would potentially increase the acquisition, use, handling and storage of hazardous materials on-site, including the installation of additional USTs and ASTs. Compliance with all applicable existing regulations and plans at the Project Site would prevent exposure of people to substantial risk resulting from the release of a hazardous material, or from exposure to a health hazard, in excess of regulatory standards. Therefore, no significant impact is anticipated.

In addition, existing emergency response and evacuation plans would be updated or new plans created, as appropriate, to include operation of the Project; therefore, it is not anticipated that operation of the Project would significantly impair implementation of or physically interfere with any adopted or on-site emergency response or evacuation plans or a local, state, or federal agency's emergency evacuation plan. No adverse impacts to emergency response or emergency evacuation plans are anticipated.

As described in Section 1.4, a portion of the Project Site (approximately 76 acres within the Mixed-Use Residential Area) may be annexed from the County's jurisdiction into the City of Los Angeles. This will have the effect of placing the proposed residential development within the Mixed-Use Residential Area under the jurisdiction of the City of Los Angeles. In addition, to adjust the boundaries between the City and County in other small areas of the property where the boundary lines intrude into buildings or otherwise need adjustment, the Applicant is seeking approval for the detachment of approximately 32 acres of City land to the unincorporated County. Should the annexation and detachment be approved, the appropriate lead agency's policies and procedures would remain and be applicable to the areas within the new City/County boundaries. The analysis of the impacts associated with the operation of the Project would remain the same as described above if detachment/annexation occurs.

2.4 Mitigation Measures

As described in Section 2.3.3, Project Design Features, compliance with all applicable laws, rules and regulations (also known as plans programs and policies) associated with hazardous materials management during design, construction and operation will minimize impacts to human health and the environment.

Following are the existing plans, programs and policies (PPP) that address potential impacts from Project implementation due to the use, storage, and creation of hazardous materials:

PPP-HAZ-1 For development in the Business, Entertainment, and/or Studio Areas, within 30-days of any change in the facility's use, handling and storage of hazardous substances at quantities that require notification pursuant

to applicable regulations, the Applicant or its successor shall notify the Certified Unified Program Agency for the site (i.e., the Los Angeles County Fire Department).

Aspects of the proposed Project that are specifically intended and designed to avoid or reduce impacts related to hazards materials management and emergency response - Project Design Features (PDF) – shall include the following:

PDF-HAZ-1 The Applicant or its successor shall implement a soil management plan approved by the Department of Toxic Substances Control (DTSC), pursuant to DTSC's Voluntary Cleanup Program, or other applicable state or local regulatory agency providing oversight, to address potential contamination in soil in the Mixed-Use Residential Area. The approved soil management plan shall include procedures for soil sampling and remedial options that may include removal (excavation), treatment (*in-situ* or *ex-situ*), or other measures, as appropriate.

PDF-HAZ-2 For development in the Business, Entertainment, and/or Studio Areas, the Applicant or its successor shall submit to the Los Angeles County Fire Department, City of Los Angeles Fire Department, and Los Angeles County Department of Public Works, as applicable, an updated emergency response and/or evacuation plan, as appropriate, to include operation of the Project. The emergency response plan shall include, but not be limited to the following: mapping of evacuation routes for vehicle and pedestrians, location of nearest hospital, and fire departments.

PDF-HAZ-3 To the extent applicable, for development in the Mixed-Use Residential Area, the Applicant or its successor shall submit to the Los Angeles County Fire Department, City of Los Angeles Fire Department, and Los Angeles County Department of Public Works, as applicable, an emergency response and/or evacuation plan, as appropriate, to include operation of the Project. The emergency response plan shall include, but not be limited to the following: mapping of evacuation routes for vehicle and pedestrians, location of nearest hospital, and fire departments.

In addition, the following mitigation measure would further minimize potential hazardous materials impacts during construction:

MM-HAZ-1 If soil contamination is suspected to be present, prior to excavation and grading, the South Coast Air Quality Management District's (SCAQMD's) Rule 1166 shall be implemented, as appropriate. If soil contamination is not suspected, but is observed (i.e., by sight, smell, visual, etc.) by a qualified professional during excavation and grading activities, excavation and grading within such an area shall be

temporarily halted and redirected around the area until the appropriate evaluation and follow-up measures are implemented, as contained in SCAQMD's Rule 1166, so as to render the area suitable for grading activities to resume. The contaminated soil discovered shall be evaluated and excavated/ disposed of, treated *in-situ* (in-place), or otherwise managed in accordance with Rule 1166 and any other applicable regulatory requirements.

2.5 Unavoidable Adverse Impacts

As discussed above, with compliance with existing regulatory requirements the construction and operation of the Project would not expose people to substantial risk resulting from the release or explosion of a hazardous material, or from exposure to a health hazard, in excess of regulatory standards. As such, significant adverse impacts would be avoided.

Section 3
Hazardous Waste Management

3.1 Introduction

This section describes the existing environmental setting related to hazardous waste management, and addresses potential impacts associated with the Project. The disposal of hazardous waste building materials, including asbestos, asbestos containing materials (ACM) and lead-based paint (LBP) are discussed in Section 4 and polychlorinated biphenyls (PCBs) are discussed in Section 5.

3.2 Environmental Setting

Following is a description of the regulatory setting and the existing physical conditions of the Project Site related to hazardous waste management.

3.2.1 Regulatory Framework

The Federal Resource Conservation and Recovery Act (RCRA) (42 U.S.C. secs. 6901-6992k) regulates the generation, transportation (through standards applicable to transporters of hazardous waste), treatment, storage and disposal of hazardous waste. Under the RCRA regulations, hazardous wastes must be tracked from the time of generation to the point of disposal. The RCRA program also sets out standards for hazardous waste treatment, storage and disposal units, which are intended to have hazardous wastes managed in a manner that minimizes the present and future threat to the environment and human health. At a minimum, each generator of hazardous waste must register and obtain a hazardous waste activity identification number. If hazardous wastes are stored for more than 90 days or treated or disposed at a facility, any treatment, storage or disposal unit must be permitted under RCRA.

RCRA classifies users that generate greater than 1,000 kilograms (kg)/month (approximately 2,205 pounds [lbs]) of non-acutely hazardous waste as "large quantity generators." Large-quantity generators are subject to the life cycle hazardous waste management requirements of RCRA. RCRA requires large quantity generators to maintain inspection logs of hazardous storage locations, records of the quantity of hazardous waste being generated and stored on-site, manifests of pick-ups of these wastes from the site by licensed hazardous waste transporters, and records from the licensed treatment/storage/disposal facilities (TSDF) which receive and ultimately treat or dispose of this waste.

RCRA allows individual states to develop their own program for the regulation of hazardous waste as long as it is at least as stringent as RCRA. The state of California has developed the California Hazardous Waste Control Law (HWCL; Health and Safety Code sec. 25100 *et seq.*; 22 CCR sec. 66260.1 *et seq.*), which is modeled closely after RCRA. Unlike RCRA, HWCL does not recognize a threshold below which generators are exempt from some or all of HWCL requirements. EPA has authorized RCRA enforcement to the State of California. Primary authority for the statewide

administration and enforcement of HWCL rests with the CalEPA's DTSC. DTSC has delegated to local agencies the authority to inspect and regulate hazardous waste generators. As described in Section 2.2.1.1 above, the LACoFD and LAFD are CUPAs under the Unified Program. The Unified Program consolidates and coordinates the six state programs that regulate business and industry's use, storage, handling and disposal of hazardous materials and hazardous wastes. The Project Site includes areas that are in unincorporated County of Los Angeles as well as areas that are in the City of Los Angeles. Though the Project Site operates under both LACoFD and LAFD CUPAs, the LAFD, which has jurisdiction over the City portion of the Project Site, has entered into an agreement with the County of Los Angeles for the LACoFD to administer the hazardous waste components of the Unified Program.[27]

Both RCRA and HWCL require businesses to prepare biennial hazardous waste reports that identify the nature and quantity of each type of hazardous waste generated and the treatment, disposal method and facilities used for each waste (40 CFR 262.41(a) and 22 CCR 66262.41). These reports must be submitted to the DTSC.

The Hazardous Waste Source Reduction and Management Review Act of 1989 (Health and Safety Code sec. 25244.12 *et seq*.), commonly referred to as SB 14 (Roberti), requires generators of 12,000 kg (approximately 26,455 lbs) or more a year of typical/operational hazardous waste to conduct an evaluation of their waste streams every four years and to select and implement viable source reduction alternatives for applicable waste streams which exceed five percent of the total volume of each applicable waste generated. The Act also requires generators to evaluate the effectiveness of the selected source reduction measures against the baseline year waste streams every four years. This Act is implemented by DTSC through DHS and LACoFD. This Act does not apply to non-typical hazardous waste generated from time-to-time at a facility, such as asbestos and PCBs.

The Hazardous Waste Disposal Land Use Statute (Health and Safety Code Section 25221 *et seq*) requires a builder who intends to construct residential or other specified buildings (such as hospitals, schools or day care centers) and knows, or has probable cause to believe, that a "significant disposal of hazardous waste" has occurred at or within 2,000 feet of its property to seek a determination from DTSC whether the property is a Hazardous Waste Property (HWP) or Border Zone Property (BZP). A HWP is land that is designated as such by the state where "a significant disposal of hazardous waste" occurred, which results in "a significant existing or potential hazard to present or future public health or safety." A BZP is land designated by the state as such "which is within 2,000 feet of a significant disposal of hazardous waste" and these wastes "are a significant existing or potential hazard to present or future public health or safety on the land in question." The only portion of the Project Site where a significant disposal of hazardous waste may have occurred is in association

[27] http://fire.lacounty.gov/HealthHazMat/CUPAFAQs.asp and http://fire.lacounty.gov/HealthHazMat/CUPAJurisdictions.asp – last accessed August 21, 2007.

with the on-site closed landfill (see Section 6 for details). As described in the Groundwater Technical Report for the Project, the Solid Waste Water Quality Assessment Test report and monitoring carried out at the landfill and submitted to the LARWQCB, indicated no hazardous wastes were disposed of at the landfill (see, also, Section 6 for details).

The federal and state OSHA regulations also contain worker safety provisions with respect to routine hazardous waste management operations and emergency responses involving hazardous wastes. The provisions are included in the Hazardous Waste Operations and Emergency Response (HAZWOPER) Standard (29 U.S.C. sec 651 *et seg*.; 29 CFR 1910.120; 40 CFR 311), which requires a written health and safety program, worker training, emergency response training, medical surveillance, and measures to reduce worker exposure to hazardous waste.

The Uniform Fire Code (UFC) regulates hazardous waste storage facilities through regular site inspections by the LACoFD and the LAFD and through the issuance of NOVs in cases where storage facilities do not meet code requirements.

3.2.2 Existing Conditions

3.2.2.1 Hazardous Waste Generation

Several users associated with the Project Site are known to generate hazardous waste as defined by RCRA. This section summarizes production, handling and disposal of hazardous waste generated on the Project Site.

The EDR report referenced above in Section 2 identified two large-quantity generators on the Project Site - the Applicant and a tenant (Technicolor) located at the northern most corner of the Business Area. The Applicant performs hazardous waste management for the entire Project Site (all tenants and third party vendors), with the exception of Technicolor (the tenant at the northern most corner of the Business Area). The Applicant's on-site hazardous waste generation is described below.

As shown on Table 3-1, the Applicant generates RCRA, Non-RCRA and universal wastes.[28] The vast majority of the hazardous waste generated by the Applicant is produced by the workshops in Building 4250 located in the Studio Area, and the Tram Maintenance Garage and CityWalk portions of the Entertainment Area operations (Figure 2-1). The Applicant does not store hazardous wastes for more than 90 days but accumulates hazardous waste in Building 4250 prior to ultimate disposal by licensed contractors. The types of waste accumulated in Building 4250 include, but are not limited to, the following:

[28] "Universal" waste is waste that everyone produces. Universal waste includes batteries, fluorescent tubes, electronic devices and small electronic appliances that if not disposed of properly could harm the environment.

- Asbestos[29]
- Non-leaking PCBs[30]
- Universal Waste
- Non-RCRA Solid Waste
- Non-RCRA Liquid Waste
- RCRA Liquid Waste
- Waste Paint-Related Materials
- Corrosives
- Isocyanates
- Pyrotechnic and Blank Munitions

As detailed in Table 3-1, in 2006, the Applicant generated a total of approximately 132,417 kg (approximately 291,317 lbs) of typical (i.e., non-asbestos and PCB) hazardous waste from eight different waste streams. In addition to the operational waste discussed above, in 2006, with asbestos and PCB waste, the Applicant's total waste generation in 2006 was approximately 133,959 kg (approximately 294,709 lbs).

Table 3-1
Applicant's Annual Hazardous Waste Generation at the Project Site[1,2]

Waste Stream	Waste Source	Quantity [in kg (lbs)]	Disposition
Universal Waste	Site wide business operations	70,049 (154,108)	Recycled
Non-RCRA Solids	Motion picture debris	11,818 (26,000)	Landfill
Non-RCRA Liquids	Automotive maintenance and spill response	34,929 (76,844)	Recycled
RCRA Liquids	Theme park operations (gun cleaning operations)	1,274 (2,803)	Treated
Waste Paint-Related Materials	Motion picture and theme park operations	13,471 (29,636)	Recycled
Corrosives	Surface preparation and other motion picture and theme park operations	302 (664)	Treated
Isocyanates	Set building and other motion picture operations	162 (356)	Incinerated

[29] Information on asbestos at the Project Site can be found in Section 4 of this report.

[30] Information on PCBs at the Project Site can be found in Section 5 of this report.

Waste Stream	Waste Source	Quantity [in kg (lbs)]	Disposition
Pyrotechnic and Blank Munitions	Theme park operations	412 (906)	Incinerated

kg = kilograms
lbs = pounds
[1] Based on 2006 data
[2] Information on asbestos and PCB waste generation are found in Section 4 and Section 5, respectively. LBP waste is included in the above waste stream and discussed in Section 4.
Source: NBC Universal, HazMat Department, e-mail from Max Liles dated February 1, 2007.

With the exception of the following, all of the Applicant's hazardous waste is shipped from the 90-day accumulation location (Building 4250):

- Used Oil – also picked up directly from the Tram Maintenance Garage (Building 5437);
- Parts Cleaning Solution - also picked up directly from both garages (Buildings 5437 and 5187) and attractions where parts washers are used; and
- Automotive Batteries – also picked up directly from both garages (Buildings 5437 and 5187).

The Applicant also implements the hazardous waste management life cycle requirements of RCRA and HWCL, including the maintenance of required inspection logs, manifests and other records. These records are subject to review by the DHS, with financial penalties for non-compliance. The Applicant is also subject to inspection of storage locations by the DTSC and CUPA.

As required by SB 14, the Applicant has implemented a number of hazardous waste reduction measures which have reduced typical/operational hazardous waste generated on-site. These measures include the following:

- Substituting water-based coatings for solvent-based coatings;
- Substituting citrus-based cleaners for solvent-based cleaners;
- Implementing countercurrent wash methods for cleaning painting equipment;
- Installing oil/water separator inlet screens to screen out solids; and
- Broom-sweeping floors.

The Applicant has a Hazardous Waste Minimization Plan that outlines hazardous waste reduction measures for typical/operational hazardous waste.

The Applicant submits biennial Hazardous Waste Reports to the DTSC, as required.

An on-site tenant (Technicolor) located in the northern portion of the Business Area portion of the Project Site separately generates, accumulates, and manages hazardous waste. Operations at Technicolor that generate waste on a routine basis include: 1) Analytical Laboratory; 2) Negative Assembly (negative cutting); 3) Paint Shops; and, 4) General Facility. As detailed in Table 3-2, in 2006, Technicolor generated a total of approximately 9,596 lbs and 347 gallons of hazardous waste from four different types of waste.

Table 3-2
Annual Hazardous Waste Generation at Technicolor's Facility
(4050 Lankershim Boulevard)

Waste Stream	Type of Waste	Quantity
Analytical Laboratory	Mixed-flammable waste solvents (i.e., acetone, Kodak film cement, lab waste, etc), nitric acid and spent carbon	232 gal of mixed waste 45 gal of nitric acid 8,100 lbs of spent carbon
Negative Assembly	Rags and filters	1,255 lbs
Paint Shop	Paints related waste	241 lbs
General Facility	Oil waste	70 gal

Source: Technicolor Hazardous Waste Management Program, Appendix B and correspondence with Mr. Rick Brown, Technicolor, February 21, 2007.
lbs = pounds
gal = gallons

Similar to the Applicant, Technicolor also implements the hazardous waste management life cycle requirements of RCRA and HWCL, including the maintenance of required inspection logs, manifests and other records. These records are subject to review by the DHS, with financial penalties for non-compliance. Technicolor's facility is also subject to inspection of storage locations by the DTSC and CUPA. All of Technicolor's hazardous waste is disposed of from the 90-day hazardous waste accumulation area located on "river road" (portion of Technicolor's facility that fronts the LAFCC/Los Angeles River). Technicolor submits biennial Hazardous Waste Reports to the DTSC if any of the criteria under Title 40 CFR, Section 262.41 are met.

3.2.2.2 Hazardous Waste Handling and Disposal

3.2.2.2.1 Hazardous Waste Procedures

Based on information provided by the Applicant, though satellite accumulation points exist throughout the Project Site, a majority of all operational hazardous waste generated on-site is brought directly from the point of generation to the HazMat Department (Building 4250) for accumulation, characterization and storage prior to disposal. Permanent satellite accumulation points are located at CityWalk, the Tram Maintenance Garage (Building 5437) and Studio Garage (Building 5187). Other accumulation points temporarily exist throughout the Project Site at various times and situations.

Most operational hazardous wastes generated by the Applicant's uses on the Project Site are accumulated at the site of generation and then transferred, by staff with appropriate training (as defined under 29 CFR 1910.120), from satellite locations to Building 4250. Non-corrosive liquid hazardous waste is typically contained in labeled 55 gallon steel drums. Spent lead/acid batteries derived from vehicles, trams, and other equipment are stored and transported on pallets. Used oil generated at the Tram Maintenance Garage in the Entertainment Area is temporarily accumulated in a 550-gallon UST at the facility.

Typical operational hazardous wastes currently generated by the Applicant are managed at licensed waste treatment, disposal or recycling facilities that are permitted to receive the applicable waste (none of these facilities are located in the City or County). Hazardous wastes disposed of off-site include paints and other substances; impacted soils; and PCB waste encountered during maintenance and renovation activities[31]. Several hazardous waste streams are collected and transported as bulk liquids, including the waste sludges collected from Building 4250 and Tram Maintenance Garage three-stage clarifiers, which are collected and transported by licensed hazardous waste haulers to appropriate facilities for recycling or disposal. Most of the hazardous wastes generated by the Applicant are transported to resource recovery facilities where the energy content of the waste is recovered for beneficial uses; therefore, landfill capacities are not a limiting factor.

An on-site tenant (Technicolor) located in the northern portion of the Business Area portion of the Project Site separately manages hazardous waste at several satellite accumulation areas within its facility. Though accumulation points exist throughout Technicolor's facility, hazardous waste is characterized and ultimately accumulated in the hazardous waste storage area located on "river road" prior to being transported by licensed hazardous waste haulers to the designated licensed waste treatment, disposal or recycling facilities that are permitted to receive the applicable waste. Similar to the Applicant, Technicolor uses trained staff and necessary safety equipment in order to maintain a safe and healthful working environment and comply with federal, state and local regulations.

3.3 Impact Analysis

3.3.1 Methodology

The analysis of the potential impacts regarding hazardous waste management was based on-site evaluations, plans and information from the Applicant.

3.3.2 Significance Thresholds

Based on the factors described in Section 2.3.2, the Project would have a significant impact if:

[31] Information on PCBs at the Project Site can be found in Section 5 of this report.

- The Project would expose people to substantial risk resulting from the release or explosion of a hazardous material, or from exposure to a health hazard, in excess of regulatory standards.

3.3.3 Project Design Features

As described in Section 3.2.2.1, above, the Applicant currently has comprehensive policies and programs specifically related to hazardous waste management that will continue to be implemented in association with the Project. These features will affect the design, construction and operation of the proposed uses related to hazardous waste management. Such uses related to hazardous waste management would be primarily non-residential in nature, inasmuch as types and amounts of hazardous materials/wastes associated with residential uses are, in general, much less of a potential concern.

3.3.4 Project Impacts

3.3.4.1 Construction

During on-site grading and building construction, hazardous materials, such as fuels, paints, solvents, concrete additives and the like, could be used and therefore require proper management and, in some cases, disposal. The management of any resultant hazardous wastes could increase the opportunity for hazardous materials releases and, subsequently, the exposure of people and the environment to hazardous materials. The construction of the Project would be performed on-site in compliance with all applicable federal, state and local requirements concerning the handling, storage and disposal of hazardous waste, as detailed in Section 3.2.1; therefore, compliance with regulations and requirements will effectively reduce the potential for the construction of the Project to expose people to substantial risk resulting from the release or explosion of a hazardous material, or from exposure to a health hazard, in excess of regulatory standards. Therefore, no significant impact is anticipated.

3.3.4.2 Operation

With implementation of the Project, it is anticipated that hazardous waste generating activities could increase. However, continued implementation of the source reduction measures being developed by the Applicant under the Hazardous Waste Source Reduction and Management Review Act (i.e., SB 14) are anticipated to reduce the generation of the major typical/operational hazardous waste streams. Although there would be additional development associated with the Project, it is projected that there would be no substantial increase in operational hazardous waste generation with implementation of source reduction measures. The Applicant must comply, and require its tenants and third-party vendors to comply, with the applicable requirements of SB 14 pertaining to hazardous waste source reduction. Due to the implementation of existing hazardous waste reduction efforts on-site, and the fact that the majority of typical/operational hazardous waste is conveyed to licensed treatment, disposal and resource recovery facilities, it is not anticipated that the Project would result in a significant increase in demand for hazardous waste landfill capacity.

Other potential environmental impacts related to the increased generation of hazardous waste are associated with potential releases of the materials. Hazardous waste releases may, if not mitigated, result in soil and/or groundwater impacts. Also, depending upon the type of material released, releases may result in potential injury if exposure takes place. The Applicant and any other owner, tenant or third-party vendor with facilities or activities that must comply with the provisions of RCRA, HWCL, DTSC and DHS must maintain, and update/upgrade as necessary, hazardous waste storage facilities, manifests and records in compliance with the applicable requirements.

Both the Applicant and the on-site tenant (Technicolor) are currently designated as large-quantity generators under RCRA and both implement the life cycle provisions of RCRA and the HWCL by maintaining the required inspection logs, manifests and records, which are subject to review by the DHS. In addition, both currently employ staff members trained to appropriate standards for the management of hazardous waste and the clean-up of releases and utilize licensed firms for transportation of hazardous waste. It is anticipated that the proposed Project would include the continued operation of the Project Site under the provisions of RCRA and the HWCL and that the required records, training, and licensed transport would continue to be required and maintained thus minimizing risks.

As is currently the Applicant's practice, as would extend through lease requirements to tenants at the Project Site and contracts with third-party vendors, compliance with all applicable federal, state and local requirements concerning the handling, storage and disposal of hazardous waste, as detailed Section 3.2.1, will effectively reduce the potential for the operation of the Project to expose people to substantial risk resulting from the release or explosion of a hazardous material, or from exposure to a health hazard, in excess of regulatory standards. Such compliance with applicable regulations related to the handling, storage and disposal of hazardous waste would be particularly effective relative to proposed non-residential uses, which have a higher likelihood of involving notable amounts and types of hazardous materials/wastes than that of residential uses. Based on the above, no significant impact is anticipated.

As described in Section 1.4, a portion of the Project Site (approximately 76 acres within the Mixed-Use Residential Area) may be annexed from the County's jurisdiction into the City of Los Angeles. This will have the effect of placing the proposed residential development within the Mixed-Use Residential Area under the jurisdiction of the City of Los Angeles. In addition, to adjust the boundaries between the City and County in other small areas of the property where the boundary lines intrude into buildings or otherwise need adjustment, the Applicant is seeking approval for the detachment of approximately 32 acres of City land to the unincorporated County. Should the annexation and detachment be approved, the appropriate lead agency's policies and procedures would remain and be applicable to the areas within the new City/County boundaries. The analysis of the impacts

associated with the operation of the Project would remain the same as described above if annexation/detachment occurs.

3.4 Mitigation Measures

As described in Section 3.3.3, Project Design Features, compliance with all applicable laws, rules and regulations (also known as plans, programs and polices) associated with hazardous waste management during the design, construction and operation will minimize impacts to human health and the environment; therefore, no impact is anticipated and no mitigation is required.

Following are the existing plans, programs and policies (PPP) that address potential impacts from Project implementation due to the disposal of hazardous waste:

PPP-HAZ-2 The Applicant or its successor shall continue to implement, as required by Senate Bill 14 (Health and Safety Code Section 25244.12), a number of hazardous waste reduction measures to reduce typical/operational hazardous waste generated on-site. In addition, to the extent applicable, the Applicant or its successor shall continue to implement the hazardous waste management life cycle requirements of Resource Conservation and Recovery Act and Hazardous Waste Control Law, including the maintenance of required inspection logs, manifests and other records, which are subject to review by the Department of Health Services. The Applicant or its successor shall also, to the extent applicable, continue to be subject to inspection of storage locations by the Department of Toxic Substances Control and the Certified Unified Program Agency (i.e., Los Angeles County Fire Department).

3.5 Unavoidable Adverse Impacts

As discussed above, implementation of existing regulatory requirements the construction and operation of the Project would not expose people to substantial risk resulting from the release or explosion of a hazardous material, or from exposure to a health hazard, in excess of regulatory standards. As such, significant adverse impacts would be avoided.

Section 4
Asbestos and Lead-Based Paint

4.1 Introduction

Asbestos is a widely used, mineral-based fibrous material that is resistant to heat and corrosive chemicals. Asbestos occurs naturally all over the world and in the serpentine rock that occurs throughout California. In addition, in the past, asbestos was used in many household products and building materials. As a result, building remodeling and demolition projects can produce asbestos waste. When asbestos fibers break off and become airborne, they can create a health risk if inhaled. Certain types of lung cancer and the lung disease asbestosis are associated with exposure to asbestos.

Lead-based paint (LBP) is defined as a paint or surface coating, such as ceramic glazing containing concentrations of lead equal to or greater than 5,000 parts per million, 0.5 percent by weight or 0.7 milligrams per squared centimeter. Lead is a toxic metal. Paint containing lead was widely used in the past (mostly pre-1980's) to coat and decorate buildings. Deterioration, damage, or disturbance of LBP on buildings may result in exposure to lead, a hazardous material when inhaled or consumed, particularly by children.[32]

4.2 Environmental Setting

Following is a description of the regulatory setting and the existing physical conditions of the Project Site related to asbestos and LBP.

4.2.1 Regulatory Framework

4.2.1.1 Asbestos

In 1976, the federal Toxic Substances Control Act (TSCA) (15 U.S.C. secs. 2601- 2671) established a system of evaluation in order to identify chemicals which may pose hazards. TSCA also established a process by which public exposure to hazards may be reduced through manufacturing, distribution, use and disposal restrictions or labeling of products. Under TSCA (40 CFR 763), EPA has enacted strict requirements on the use, handling and disposal of asbestos-containing materials (ACM). These regulations include the phase out of "friable asbestos"[33] and ACM in new construction materials beginning in 1979 (40 CFR 763). Friable asbestos may be found in pre-1979 construction. In addition, due to potential adverse health effects in exposed persons, in 1989 EPA banned most uses of asbestos in the United States. Although most of the ban was overturned in 1991, the current banned product categories include corrugated paper, rollboard, commercial paper, specialty paper, flooring felt, and any

[32] LBP that is in good condition is usually not a hazard.

[33] A "friable asbestos" product is one that will crumble, pulverize or otherwise release fibers by the application of hand pressure.

new uses.[34] TSCA is enforced by the EPA through inspections by EPA of places in which ACM is manufactured, processed, and stored and through the assessment of administrative and civil penalties and fines, as well as injunctions against violators.

Under RCRA, asbestos is not regulated as hazardous waste, but considered a "non-RCRA," or "California-only" hazardous waste, CalEPA's DTSC classifies ACM as hazardous waste if it is friable and contains one percent or more asbestos (CCR, Title 22, Section 66261.24). Non-friable bulk asbestos-containing waste is considered by DTSC as nonhazardous regardless of its asbestos content, so it is not subject to regulation under CCR, Title 22, Division 4.5. DTSC regulates the packaging, on-site accumulation, transportation (through standards applicable to transporters of hazardous waste), and disposal of asbestos when it is a hazardous waste.

The federal and state OSHA programs regulate asbestos as it relates to employee safety through a set of general notification requirements and corrective actions to reduce potential exposure levels. The federal OSHA Worker Exposure Rule for Asbestos (29 CFR 1910.1001 and 1926.1101) requires certain actions on the part of any employer whose employees are potentially exposed to asbestos fiber levels above the permissible exposure limit (0.2 fibers per cubic centimeter of air [f/cc], averaged over an 8-hour day). These actions include:

- Corrective measures to reduce exposure levels;
- Notification, including warning signs and labels;
- Controlled access;
- Use of protective equipment;
- Implementation of engineering and housekeeping controls; and
- Employee training programs.

OSHA has established an action level as well for workplace exposure. If an employee could be exposed above the action level, employers must begin compliance activities such as notification, employee training, air monitoring and, in some cases, medical surveillance. In buildings that contain ACM, levels of airborne asbestos are not expected to reach OSHA exposure standards. Nonetheless, EPA recommends that building owners inform building occupants of the presence and location of ACM, even if potential exposure is below the levels identified above. In addition to these regulations, contractors involved in asbestos surveys and removal are required to be certified by Cal/OSHA.

[34] EPA Asbestos Materials Ban (ABPO Rule): Clarification – http://www.epa.gov/fedrgstr/EPA-TOX/pre1994/4635-7.pdf – last accessed August 21, 2007.

The Connelly Act (AB 3713; Health and Safety Code sec. 25915 *et seq.*) establishes notification requirements for all owners and employees working within any pre-1979 building known to contain ACM. Notification could be based upon a survey of ACM and their locations. The notification requirements of the Connelly Act are enforced by Cal/OSHA.

Under HWCL, asbestos is listed as a hazardous waste although asbestos is not considered to be a hazardous waste under RCRA. EPA has established a National Emission Standards for Hazardous Air Pollutants (NESHAP) (40 CFR 61 Part M) that governs the use, removal, and disposal of ACM as a hazardous air pollutant. The NESHAP regulations concern the manufacture, spraying and fabricating of ACM, as well as its application, removal and disposal. The NESHAP regulations mandate the removal of friable ACM before a building is demolished and includes notification requirements prior to demolition. The regulations also mandate removal techniques, limit visible emissions of dust to the outside air during removal or renovation, specify disposal procedures, and include provisions governing the packaging and labeling of asbestos wastes. The NESHAP regulations are promulgated and enforced by the EPA. Responsibility for implementing these requirements has been delegated to the State of California, which in turn has delegated the responsibility to SCAQMD. The SCAQMD implements the NESHAP through its Rule 1403.

The SCAQMD regulates asbestos through Rule 1403, Asbestos Emissions from Renovation/Demolition Activities. The Rule regulates asbestos as a toxic material and controls the emissions of asbestos from demolition and renovation activities by specifying agency notifications, appropriate removal procedures, and handling and clean up procedures. The Rule applies to owners and operators involved in the demolition or renovation of ACM-containing structures, asbestos storage facilities, and waste disposal sites. The requirements under this rule include the following:

- Surveying structures for ACM;
- Agency notification of intention to remove asbestos;
- ACM removal procedures and time schedules;
- ACM handling and clean up procedures;
- ACM storage, disposal and landfill requirements; and
- Record keeping.

4.2.1.2 Lead-Based Paint

Lead exposure is regulated at the federal and state levels and by various agencies. The EPA has been mandated to protect building occupants from the hazards associated with LBP as described in Title X, the Residential Lead-Based Paint Reduction Act of 1992 (of the Housing and Community Development Act of 1992). Title X amends the TSCA, Title IV (Lead Exposure Reduction) and contains all the EPA mandates for

target housing owner and occupant notification and the regulation of LBP activities occurring in target housing. Under Section 402(a)(1) of TSCA, the EPA is also developing new disposal standards for LBP wastes. At present, RCRA and State regulations generally apply to the disposal of lead and not specifically LBP.

As a majority of LBP debris found at the Project Site to date has been found to not require disposal as a hazardous material, the applicable regulations associated with the LBP at the site is focused on worker exposure. Federal OSHA requirements, set forth in 29 CFR sec. 1910 *et seq.*, are designed to promote worker safety, worker training, and worker right-to-know. Requirements include: General Industry Respiratory Protection Standard (29 CFR 1910.134) for the use of respiratory protection devices intended to control occupational diseases caused by breathing air contaminated with harmful dusts, fogs, fumes, mists, gases, smokes, sprays, or vapors; the Lead in General Industry Standard (29 CFR 1910.1025), which is applicable to all occupational exposures to lead, except for lead exposures in the construction industry, to protect employees from significant lead exposures and to educate the employees on health hazards associated with lead; and, the General Industry Hazard Communication Standard (29 CFR 1910.1200), which is OSHA's general industry hazard communication standard and applies to all employees exposed to chemical and physical hazards in the general industry sector. OSHA requirements set forth in 29 CFR sec. 1926 *et seq.*, are designed to promote safety during construction. These requirements include standards to comprehensively address the issue of evaluating and communicating chemical and physical hazards to employees in the construction sector (the Construction Industry Hazard Communication Standard [29 CFR 1926.59]), for the demolition, salvage, removal, alternation, etc. of lead containing materials and lead contamination/emergency cleanup, transportation, disposal, storage, or containment of lead or materials containing lead on the site or location at which construction activities are performed, including maintenance activities associated with construction activities (the Lead in Construction Standard [29 CFR 1926.62]). As with 29 CFR 1910.134, the Respiratory Protection in Construction Standard (29 CFR 1926.103) is applicable to all employees who are required or choose to wear respiratory protection devices. The intent of the standard is to control occupational diseases caused by breathing air contaminated with harmful dusts, fogs, fumes, mists, gases, smokes, sprays, or vapors. This standard requires the establishment of a written respiratory protection program whenever employees are required or choose to wear respirators.

Title 8 of the CCR, Section 1532.1 (8 CCR 1532.1) is a rule developed by Federal OSHA in 1993 and adopted by California. This rule is comparable to the federal standards described above. While this regulation has been updated several times since 1993, one important difference between it and the federal standard is the additional requirement to notify Cal/OSHA in writing before abating 100 square feet or more of LBP. Title 17 of the CCR, Division 1, Chapter 8 requires that all consultants and contractors conducting activities involving LBP, or lead hazards, as defined, be certified. This regulation also defines LBP, lead hazards and lead clearance criteria. This regulation requires that the California Department of Health Services be notified

in writing before all hazard-related testing and hazard mitigation-related abatement activities. Title 22 of the CCR, Section 66261.24 (22 CCR 66261.34) is the state's version of the requirements for testing of all waste streams prior to disposal. In addition, Title 22, Division 2, Chapter 3, Sections 12000 through 14000 (Safe Drinking Water and Toxic Enforcement – enacted as Proposition 65) lists lead as a substance known to the State of California to be a reproductive toxin, and prohibits a business from knowingly exposing anyone to levels in excess of the "No Significant Risk Level" without first giving "clear and reasonable warning." The No Significant Risk Level is set at 5 micrograms (µg) of lead per day. In addition to providing warning requirements, these codes prohibit discharge to land or water where lead can pass into a source of drinking water.

4.2.2 Existing Conditions

Due to the wide variety and ages of structures and equipment on the Project Site, asbestos and ACM are occasionally encountered during demolition and renovation activities, particularly in the Studio Area portion of the Project Site. Building materials that may contain asbestos include: floor tile, roof membrane, soundproofing, acoustic ceiling tile, insulation, joint compound, and exterior stucco. Asbestos is usually encountered in equipment in the form of gaskets and heat/electrical insulation. In addition, ACM could be present in the insulation for production light bulb wiring. In 2006, the Applicant generated and disposed of approximately 1,442 kg (approximately 3,172 lbs) of asbestos and ACM, which was disposed of in approved Class III landfills (i.e., a facility that accepts non-hazardous solid waste, such as a municipal solid waste landfill).

As a result of TSCA, production, distribution and availability of construction materials containing friable asbestos and ACM in the United States has been significantly reduced; therefore, on-site construction and/or renovation includes use of commercially sold construction materials that are not expected to increase the occurrence of asbestos or ACM at the Project Site. Moreover, per the federal NESHAP regulations and SCAQMD Rule 1403, renovation/replacement of structures will conform to applicable permitting, notification and worker safety requirements for the removal of ACM from these structures. In addition, the Applicant has developed an Asbestos Management Plan (AMP) to provide employees and contractors with the techniques and systems necessary to minimize the potential for release of ACM, as well as outline the actions to be taken in the event of accidental disturbance to ACMs.[35] The AMP, which was prepared by an asbestos consultant certified by Cal/OSHA, provides specific guidelines, work practices, procedure, and protocols for employees and contractors to follow during construction projects and operation and maintenance activities conducted in proximity to ACM. In addition, the AMP contains procedures to deal with asbestos-related emergencies. The Applicant also complies with DTSC handling, packaging, transportation and disposal requirements. Asbestos from the Project Site is currently landfilled at Class III facilities as required by state law. In addition, non-hazardous material containing asbestos at a concentration less

[35] NBC/Universal, Environmental, Health & Safety, "Asbestos Management Plan", September 2006.

than 1 percent (known as Asbestos Containing Construction Material by Cal/OSHA) is managed as construction debris. The Applicant also complies with the Connelly Warning Act, which requires notification to employees and tenants who work in pre-1979 buildings known to contain ACM.

As with asbestos/ACM, due to the wide variety and ages of structures and equipment on the Project Site, LBP is also occasionally encountered during demolition and renovation activities, particularly in the Studio Area portion of the Project Site. LBP has been identified associated with (but not limited to) several types of building materials and surfaces, including: beams, ceilings, walls, windows, doors, floors, handrails, ceramic glazed tiles (particularly in restrooms on-site), and painted curbs and parking strips. [36]

The federal government banned LBP from housing in 1978. In addition, as with asbestos and ACM, on-site construction and/or renovation includes use of commercially sold construction materials that are not expected to increase the occurrence of LBP at the Project Site. The Applicant complies with all applicable handling, packaging, transportation and disposal requirements. In association with LBP practices and controls at the Project Site, waste materials generated from LBP are tested prior to disposal. Although all LBP debris is assumed hazardous until properly tested, to date, sample results have shown that LBP debris at the site has been at non-hazardous levels.[37] Non-hazardous material containing LBP is managed as construction debris. The Applicant maintains a Lead-Based Paint Management Plan that details responsibilities, LBP assessment procedures, work practices, training and record keeping associated with the handling of LBP debris at the Project Site. In addition, per the Respiratory Protection in Construction Standard, the Applicant has a specific respiratory protection program whenever employees are required or choose to wear respirators.

To date, the Applicant has surveyed all buildings and structures on the Project Site for asbestos/ACM and LBP.[38]

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[36] NBC Universal, Environmental, Health & Safety, "Lead-Based Paint Management Plan, NBC/Universal Facility," March 2007.

[37] Ibid and telephone communication with Mr. Max Liles, NBC Universal, Environmental, Health & Safety, September 17, 2007.

[38] Since about 1999, as necessary (particularly prior to renovation or demolition of pre-1979 structures or if suspect materials are found), the Applicant has been requiring asbestos surveys at the Project Site. All the asbestos surveys for the site were performed by certified asbestos consultants and all analytical services were by an accredited laboratory. The asbestos surveys were prepared in accordance with EPA's NESHAP, 40 CFR 61, Part M, and the local requirements from the SCAQMD (Rule 1403).

4.3 Impact Analysis

4.3.1 Methodology

The analysis of the potential impacts regarding the generation and disposal of asbestos and LBP was based on Project Site evaluations, plans and information from the Applicant.

4.3.2 Significance Thresholds

Based on the factors described in Section 2.3.2, the Project would have a significant impact if:

- The Project would expose people to substantial risk resulting from the release or explosion of a hazardous material, or from exposure to a health hazard, in excess of regulatory standards.

4.3.3 Project Design Features

As described in Section 4.2.2, above, the production, distribution, availability, and labeling of construction materials containing friable asbestos, ACM and LBP in the United States has been significantly reduced. Existing design and construction requirements and management practices would continue at the Project Site in accordance with applicable federal, state, and local regulations related to asbestos/ACMs and LBP. No additional or specific design features related to asbestos/ACMs or LBP are proposed.

4.3.4 Project Impacts

4.3.4.1 Construction

Per TSCA, friable asbestos has been eliminated as a component in modern construction materials; therefore, new development on the Project Site is not expected to expose persons to friable asbestos. However, the Applicant has performed an asbestos survey of the Project Site and has indicated that encountering asbestos and ACM is probable in older structures that may be renovated or replaced as part of the implementation of the Project. The possibility of encountering structures is higher within the Studio and Mixed-Use Residential Areas of the Project Site where a majority of the older structures (which may contain asbestos) are located. Project-related demolition/renovation activities undertaken during Project construction could generate asbestos-containing waste. Disposal of this waste would be undertaken in accordance with all applicable laws and regulations. In addition, renovation or replacement of asbestos-containing structures or equipment could potentially expose construction workers and/or employees to asbestos. Asbestos use and disposal are actively regulated. In accordance with the Applicant's AMP, construction projects at the site will continue to comply with OSHA, Cal/OSHA, NESHAP, SCAQMD, and Connelly Warning Act requirements concerning permitting, notification, and worker safety. Asbestos abatement and disposal of asbestos and ACM-containing waste would be undertaken, as is currently the practice per the AMP, in compliance with all laws, and landfilled at Class III facilities. As handling

and disposal of asbestos and ACM will be in accordance with all applicable laws and regulations, construction of the Project would not expose people to substantial risk resulting from the release or explosion of a hazardous material, or from exposure to a health hazard, in excess of regulatory standards. Therefore, no significant impact associated with asbestos and ACM is anticipated from construction of the Project.

LBP has been eliminated as a component in modern materials; therefore, new development on the Project Site is not expected to expose persons to LBP. However, the Applicant has performed LBP surveys of the Project Site and has indicated that encountering LBP is probable in older structures that may be renovated or replaced as part of the implementation of the Project. The possibility of encountering structures is higher within the Studio and Mixed-Use Residential Areas of the Project Site where a majority of the older structures (which may contain LBP) are located. Project-related demolition/renovation activities undertaken during Project construction could generate LBP-containing debris. Disposal of this waste would be undertaken in accordance with all applicable laws and regulations. In addition, renovation or replacement of LBP-containing structures or equipment could potentially expose construction workers and/or employees to LBP. The Applicant will continue to work to ensure compliance with all applicable rules and regulations regarding LBP worker safety, removal and disposal. Disposal of LBP-containing waste would be undertaken, as is currently the practice, in compliance with all laws, and landfilled, as applicable. As handling and disposal of LBP will be in accordance with all applicable laws and regulations, construction of the Project would not expose people to substantial risk resulting from the release or explosion of a hazardous material, or from exposure to a health hazard, in excess of regulatory standards. Therefore, no significant impact associated with LBP is anticipated from construction of the Project.

4.3.4.2 Operation

As mentioned in Section 4.2.2 above, as a result of TSCA, production, distribution and availability of construction materials containing friable asbestos and ACM in the United States has been significantly reduced. New on-site construction and/or renovation due to the Project would include use of commercially sold construction materials that are not expected to increase the occurrence of friable asbestos or ACM at the Project Site. Therefore, operation of the new development proposed at the Project Site is not expected to expose persons to friable asbestos. In addition, per applicable regulations (such as federal NESHAP regulations and SCAQMD Rule 1403), new workers associated with the Project would be protected by worker safety requirements. The Applicant's AMP provides guidelines, work practices, procedures, and protocols for ongoing operations and maintenance activities conducted in proximity to ACM, as well as procedures to deal with asbestos-related emergencies. The AMP is updated as necessary (i.e., to comply with regulatory changes and update roles, responsibilities and contact information) to provide a safe working environment relative to ACMs for all occupants of the Applicant's facilities. With the implementation of the AMP and existing laws and regulations, operation of the Project would not expose people to substantial risk resulting from the release or explosion of a hazardous material, or from exposure to a health hazard, in excess of

regulatory standards. Therefore, no significant impact associated with asbestos and ACM is anticipated from operation of the Project.

As mentioned in Section 4.2.2 above, as a result of the government ban, LBP in the United States has been significantly reduced. New on-site construction and/or renovation due to the Project would include use of commercially sold construction materials that are not expected to increase the occurrence of LBP at the Project Site. Therefore, operation of the new development proposed at the Project Site is not expected to expose persons to LBP. In addition, per applicable regulations (such as federal and state OSHA requirements), new workers associated with the Project would be protected by worker safety requirements. With existing laws and regulations, operation of the Project would not expose people to substantial risk resulting from the release or explosion of a hazardous material, or from exposure to a health hazard, in excess of regulatory standards. Therefore, no significant impact associated with LBP is anticipated from operation of the Project.

As described in Section 1.4, a portion of the Project Site (approximately 76 acres within the Mixed-Use Residential Area) may be annexed from the County's jurisdiction into the City of Los Angeles and small areas of the property where the boundary lines intrude into buildings or otherwise need adjustment may be detached from the City to the unincorporated County. Should the detachment and annexation be approved, the appropriate lead agency's policies and procedures would remain and be applicable to the areas within the new City/County boundaries. The analysis of the impacts associated with the operation of the Project would remain the same as described above if detachment/annexation occurs.

4.4 Mitigation Measures

Compliance with all applicable laws, rules and regulations (also known as plans, programs and policies) associated with hazardous materials management will minimize impacts to human health and the environment; therefore, no impact is anticipated and no mitigation is required.

Following are the existing plans, programs and policies (PPP) that address potential impacts from the demolition or remodeling of structures with ACM and/or LBP:

PPP-HAZ-3 Prior to the issuance of any demolition permit or building permit for remodeling of existing buildings, the Applicant or its successor shall provide evidence to the City of Los Angeles or County of Los Angeles Department of Building and Safety, as applicable, that the demolition contract provides for a qualified asbestos abatement contractor/specialist to remove or otherwise abate or manage asbestos during demolition or renovation activities in accordance with all applicable federal, state and local regulations.

PPP-HAZ-4 Prior to the issuance of any demolition permit or building permit for remodeling of existing buildings, the Applicant or its successor shall

provide evidence to the City of Los Angeles or County of Los Angeles Department of Building and Safety, as applicable, that the demolition contract provides for a qualified lead-based paint abatement contractor/specialist to remove or otherwise abate or manage lead-based paint during demolition or renovation activities in accordance with all applicable federal, state and local regulations.

4.5 Unavoidable Adverse Impacts

As discussed above, implementation of existing regulatory requirements the construction and operation of the Project would not expose people to substantial risk resulting from the release or explosion of a hazardous material, or from exposure to a health hazard, in excess of regulatory standards. As such, significant adverse impacts would be avoided.

Section 5
Polychlorinated Biphenyls (PCBs)

5.1 Introduction

Polychlorinated biphenyls (PCBs) are a subset of synthetic organic chemicals known as chlorinated hydrocarbons that are excellent electrical insulating fluids and were used extensively until the late 1970s in electrical equipment such as transformers, lighting ballast, and heavy electrical switching gear. Since PCBs are persistent when released into the environment and have low water solubility, which allows PCBs to accumulate in the fatty tissue of animals and humans, PCBs are suspected as human carcinogens. The manufacture of PCBs was banned in 1979.

5.2 Environmental Setting

Following is a description of the regulatory setting and the existing physical conditions of the Project Site related to generation and disposal of PCB-containing material.

5.2.1 Regulatory Framework

Due to their hazardous properties, all aspects of PCBs are strictly regulated by EPA under TSCA. These regulations ban the manufacture of PCBs although the continued use of existing PCB-containing equipment is allowed. Transformer oil containing PCBs at a concentration exceeding 5 parts per million (ppm) is the California-regulated concentration for hazardous waste though PCBs in transformer oil at a concentration up to 50 ppm are currently allowed in transformers in California. TSCA also contains provisions controlling the continued use and disposal of existing PCB-containing equipment.

The disposal of hazardous waste building materials, including PCBs, is also regulated by federal and state laws. The disposal of PCB wastes is regulated by TSCA (40 CFR 761), which contains life cycle provisions similar to those in RCRA. In addition to TSCA, provisions relating to PCBs are contained in the HWCL, which lists PCBs as hazardous waste.

5.2.2 Existing Conditions

Most electrical transformers and oil-filled switches located on-site were replaced, or had the oil replaced, as part of a project which took place in 1985 to reduce PCBs. Older transformers and switches containing PCBs may still be encountered on the Project Site. All the transformers containing PCBs are below 50 ppm and most are below 5 ppm. Lighting ballasts are only replaced as needed. All lighting ballasts that are not clearly labeled as non-PCB are treated as PCB containing and are handled, stored and disposed of in accordance with applicable regulations. In 2006, the Applicant handled and disposed of approximately 100 kg (approximately 220 lbs) of

PCB ballasts, which were disposed of using incineration.[39] PCB-containing materials are assumed present on the Project Site and are generally associated with studio operations within the Studio Area. In accordance with TSCA, the Applicant currently uses only non-PCB containing electrical equipment in all new and replacement construction.

5.3 Impact Analysis

5.3.1 Methodology

The analysis of the potential impacts regarding the generation and disposal of PCB-containing materials was based on Project Site evaluations, plans and information from the Applicant.

5.3.2 Significance Thresholds

Based on the factors described in Section 2.3.2, the Project would have a significant impact if:

- The Project would expose people to substantial risk resulting from the release or explosion of a hazardous material, or from exposure to a health hazard, in excess of regulatory standards.

5.3.3 Project Design Features

As described in Section 5.2.2, above, the use of only non-PCB containing electrical equipment in all new and replacement construction would continue at the Project Site. In accordance with applicable federal, state, and local regulations, as PCBs have been eliminated as a component of modern electrical facilities and fixtures, the design, construction and maintenance of new development associated with the Project would not include features that would expose persons to PCBs. No additional or specific design features related to PCBs are proposed.

5.3.4 Project Impacts

5.3.4.1 Construction

Implementation of the Project could result in the generation of PCB wastes during demolition and renovation. All the existing PCB-containing transformers and oil-filled switches on-site are below 50 ppm and most are below the 5 ppm, which is the California-regulated concentration for hazardous waste. Older, unlabeled PCB-containing transformers, lighting ballasts and switching gear still exist on the property and may-be encountered during demolition, renovation/replacement, or maintenance as a result of activities associated with construction of the Project. In order to address potential impacts associated with PCB-containing equipment, the Applicant, its tenants and third-party vendors, as necessary, would implement the

[39] Presently, the only approved method of disposing PCBs is incineration. The Applicant's licensed haulers are currently disposing of PCBs from the site under an agreement with a TSCA-permitted facility in Port Arthur, Texas.

life-cycle management requirements of HWCL and TSCA, and any other PCB-related requirements of DTSC. These requirements include, but are not limited to, the maintenance of manifests of PCB-containing materials and waste stored on-site and the implementation of required handling, storage and disposal standards, practices and record keeping. As disposal of PCB-containing waste would be undertaken in accordance with all applicable laws and regulations, construction of the Project would not expose people to substantial risk resulting from the release or explosion of a hazardous material, or from exposure to a health hazard, in excess of regulatory standards. Therefore, no significant impact associated with PCBs is anticipated from construction of the Project.

5.3.4.2 Operation

Due to the elimination of PCBs as a component of modern electrical facilities and fixtures, new development and the maintenance of electrical systems associated with that new development would not expose persons to PCBs. Available information indicates that PCB-containing materials on the Project Site are currently handled in accordance with TSCA and HWCL (see Section 3, Hazardous Waste Management). As the Applicant, on-site tenants and third-party vendors are expected to continue to comply with applicable laws in the future, operation of the Project would not expose people to substantial risk resulting from the release or explosion of a hazardous material, or from exposure to a health hazard, in excess of regulatory standards. Therefore, no significant human exposure to PCBs is anticipated from the operation of the Project.

As described in Section 1.4, a portion of the Project Site (approximately 76 acres within the Mixed-Use Residential Area) may be annexed from the County's jurisdiction into the City of Los Angeles and small areas of the property where the boundary lines intrude into buildings or otherwise need adjustment may be detached from the City to the unincorporated County. Should the annexation and detachment be approved, the appropriate lead agency's policies and procedures would remain and be applicable to the areas within the new City/County boundaries. The analysis of the impacts associated with the operation of the Project would remain the same as described above if annexation/detachment occurs.

5.4 Mitigation Measures

Compliance with all applicable laws, rules and regulations (plans, programs and policies) associated with hazardous materials management will minimize impacts to human health and the environment; therefore, no impact is anticipated and no mitigation is required.

Following are the existing plans, programs and policies (PPP) that address potential impacts related to generation and disposal of PCB-containing material:

PPP-HAZ-5 Polychlorinated biphenyls (PCBs) may be encountered during demolition, renovation/replacement, or maintenance activities at the Project Site. The disposal of PCB wastes shall be in accordance with the

life cycle provisions in the Toxic Substances Control Act (40 CFR 761), and the provisions in the Hazardous Waste Control Law, as administered by the Los Angeles County Fire Department under its Certified Unified Program Agency responsibilities under the Unified Program.

5.5 Unavoidable Adverse Impacts

As discussed above, implementation of existing regulatory requirements the construction and operation of the Project would not expose people to substantial risk resulting from the release or explosion of a hazardous material, or from exposure to a health hazard, in excess of regulatory standards. As such, significant adverse impacts would be avoided.

Section 6
Closed On-site Landfill

6.1 Introduction

The Project Site includes a closed landfill located beneath the northeasternmost portions of the Entertainment Area (tram garage parking lot, roadway, tram garage), as illustrated in Figure 6-1.

The potential impact from the closed landfill on groundwater is analyzed in the Groundwater Technical Report associated with the Project's Draft EIR.

6.2 Environmental Setting

Following is a description of the regulatory setting and the existing physical conditions of the Project Site related to the closed on-site landfill.

6.2.1 Regulatory Framework

Subtitle D of RCRA provides the basic framework for the federal regulation of landfill siting, operation, and closure, including liner and capping requirements. The State of California administers Subtitle D requirements as contained in the California Code of Regulations (23 CCR Division 3, Chapter 15) and codified in the State Water Code (Section 1058).

In addition to including regulations substantially equivalent to Subtitle D of RCRA, Chapter 15 includes other state requirements pertaining to landfills. The state requirements include provisions of the Calderon Act of 1984 (Water Code Section 13273). This legislation requires that a Solid Waste Assessment Test (SWAT) study be performed to characterize possible contamination of surface and ground waters, soil, and air at landfills. The Calderon Act is implemented by the State Water Resources Control Board (SWRCB). In the County and City of Los Angeles, the SWAT requirements are implemented and enforced by the LARWQCB.

A separate requirement of the Calderon Act (Heath and Safety Code Section 41805.5) requires that a Solid Waste Air Quality Assessment Test (SWAQAT) be prepared for landfill sites in order to define the composition of any gas stream or other air contaminants emanating from existing landfills. LACDPW and SCAQMD have additional authority relating to the SWAQAT provisions. LACDPW requires quarterly monitoring and reporting of methane collection and detection systems at the Project Site. In addition, quarterly landfill monitoring and sampling are conducted at the Project Site in accordance with the SCAQMD Rule 1150.1, Compliance Plan dated June 23, 2000.

As detailed in Section 3.2.1 above, the Hazardous Waste Disposal Land Use Statute (Health and Safety Code Section 25221 *et seq*) requires a builder who intends to

construct residential or other specified buildings (such as hospitals, schools or day care centers) and knows, or has probable cause to believe, that a "significant disposal of hazardous waste" has occurred at or within 2,000 feet of its property to seek a determination from DTSC whether the property is a HWP or BZP. Based on existing information pertaining to the closed on-site landfill (refer to Section 6.2.2 below), there is no evidence that "a significant disposal of hazardous waste" resulting in "a significant existing or potential hazard to present or future public health or safety" has occurred at the Project Site. As described in the Groundwater Technical Report for the Project, the SWAT report (which included all relevant background information and waste disposal history) and monitoring carried out at the landfill and submitted to the LARWQCB indicated no hazardous materials were disposed of at the landfill.

Pursuant to 27 CCR, Section 21190, Solid Waste Local Enforcement Agencies (LEAs) have oversight of disposal site postclosure land use. The CIWMB has established regulations addressing postclosure land use activities. CIWMB closure and postclosure maintenance plan requirements apply to all solid waste landfills required to be permitted that were operating on or after January 1, 1988. For sites that ceased operating prior to January 1, 1988, if a significant change in postclosure land use is proposed for these sites, a postclosure land use proposal should be submitted to the LEA to address compliance with 27 CCR, Section 21190. The LEA is required to approve the proposed postclosure land use if the project involves structures within 1,000 feet of the disposal area, structures on top of waste, modification of the low permeability layer, or irrigation over waste (27 CCR, Section 21190(c)).[40] The closed on-site landfill ceased operations prior to current regulations; therefore, there is no formal closure or postclosure plan for the landfill. However, LACDPW is the LEA for the CIWMB regulations addressing postclosure land use activities and maintains periodic Closed Disposal Site Inspection Reports related to the landfill. On-site construction within 1,000 feet of the boundary of the disposal area is required to be designed to prevent gas migration into the building (27 CCR Section 21190(g)).

Title 26 of the Los Angeles County Building Code (Section 110.3) indicates that permits will not be issued for buildings or structures located within 1,000 feet of fills containing rubbish or other decomposable material unless the fill is isolated by approved natural or artificial protective systems or unless designed according to recommendations contained in a report prepared by a licensed civil engineer. Such a report must include recommendations to minimize the possible intrusion and accumulation of explosive concentrations of decomposition gases in or under enclosed portions of proposed buildings or structures. These provisions are enforced by the LACDPW.

The Los Angeles Municipal Code outlines the methane mitigation requirements for Methane and Methane Buffer Zones in the City of Los Angeles. The Citywide Methane Ordinance Map (A-20960) shows the Methane and Methane Buffer Zones in

[40] LEA Advisory #51, Disposal Site Postclosure Land - http://www.ciwmb.ca.gov/LEAAdvisory/51/ - last accessed August 21, 2007.

the City of Los Angeles. Although the Project Site is not in a Methane or Methane Buffer Zone, as noted above, Section 91.7108 of the Code (as amended by Ordinance No. 175,790) states that if the City's Department of Building and Safety determines that a hazard may exist from methane intrusion to an area outside of the defined methane boundaries, the Department of Building and Safety and LAFD may enforce any or all of the requirements of this code at the Project Site.

Though portions of the Project Site are within the City of Los Angeles, methane requirements at the Project Site are currently implemented and enforced by the LACDPW.

6.2.2 Existing Conditions

6.2.2.1 Background

The landfill was originally a canyon. Filling of the canyon began in the late 1920s. The landfill was not open for public use. Based on anecdotal evidence, the landfill was initially used for depositing studio waste only, which was composed primarily of inert or slow-to-decompose material such as construction debris, quantities of prop discards made of mainly wood and plastic, and paper wastes. In later years restaurant waste from the theme park was also reportedly deposited. No hazardous or potentially hazardous materials are known to have been disposed of at the former landfill site. Landfill activities ended around 1980. A final soil cap cover consisting of about two to six feet of clean silty and clayey sand fill (earth fill) has been placed over the landfill area. Since the closure of the landfill, roads, asphalt pavement, and buildings have been developed over approximately 50 percent of the landfill surface area. Natural vegetation covers the remaining undeveloped slope surface of the landfill site (northern portion). [41]The Collapsing Bridge Pond, which is a cement-lined water feature, lies directly adjacent to the northern edge of the landfill area.

The first investigation into the possibility of landfill gas migration was undertaken in 1975. In 1982, an air dike gas migration control system was installed in the Amphitheatre area. Between 1978 and 1984, 45 permanent gas probes were installed within 1,000 feet of the boundary of the landfill area in order to monitor for the presence of landfill generated gas. Quarterly monitoring of the probes started in 1983. During the 1980's, additional gas probes and gas control systems were installed around the landfill area and added to the monitoring program. A listing of the

[41] Lockman & Associates; "Solid Waste Assessment Test (SWAT) Final Report," June 29, 1988.

various methane control, mitigation and monitoring systems at the Project Site within 1,000 feet of the landfill, and their status, is summarized in Table 6-1. The landfill is currently in compliance with applicable regulations and programs.

As indicated in Section 2.2.2.1, the landfill is identified in the EDR report under the WMUDS/SWAT/EMI and SWF/LF databases. The landfill is also listed as "closed" in the Solid Waste Information System (SWIS) database, which included all active, closed and inactive landfills. The landfill was licensed by the Los Angeles County Department of Health Services as a solid waste disposal facility (license #19AA049).

6.2.2.2 Results of the SWAT and SWAQAT

6.2.2.2.1 Results of the SWAT

The SWAT finalized by Lockman & Associates (June 1988) revealed that the lower levels of the landfill contain primarily inert material, with newer, more readily decomposable materials found in the upper portions of the fill near its southerly boundary. Based on the background information, waste disposal history, and the analysis of surface and groundwater on, under, and within the area investigated, the SWAT concluded no hazardous or potentially hazardous materials have been disposed of at the landfill. In addition, monitoring conducted during the SWAT indicated no leakage of hazardous materials into the unsaturated zone and landfill leachate.

6.2.2.2.2 Results of the SWAQAT

In addition to the SWAT, testing was required to define the composition of gas streams immediately above the landfill and analyze specified air contaminants in the ambient air adjacent to the landfill to determine the effect of the landfill on air quality. The SWAQAT field testing, conducted in 1989 by Lockman & Associates, indicated the following:[42]

- Monitored methane levels were below regulatory action levels;
- Some specified air contaminants (i.e., 1,1,1-trichlooethane, tetrachlororthylene and methylene chloride) were slightly above ambient levels, but below OSHA short-term exposure limit levels at that time; and
- No detectable increase in the remaining specified air contaminants.

Based on numerous methane gas generation studies that have been conducted on municipal solid waste facilities, and based on Project Site conditions, landfill age and

[42] Lockman & Associates; "Solid Waste Air Quality Assessment Test (SWAQAT) Final Report," September 1989.

A = Installed/Active
I = Installed/Inactive
U = Under Construction
D = Destroyed

Table 6-1
Existing Methane Mitigation Measures at Facilities Within 1,000 feet of Landfill

Facility (Building #)	Membrane	Subslab Vent Pipe	Passive Vent	Active Vent		Perimeter Wells		Air Dike		Interior Sensors	Interior Soil Probes	Exterior Soil Probes	Membrane Probes
				Extraction	Injection	Extraction	Injection	Extraction	Injection				
Landfill											9	42	
Amblin Trailers (61020-2)*											2	4	
Amblin Building (5135)												**4 (2 replaced in May 2006)**	
Building (5159)												2	
Lower Lot Bungalows											14	**4 (4 replaced in May 2006)**	
Tram Garage (5437)	A	A	A	A		A	I	I	I	A		**1 (installed in October 2004)**	**1-A, 1-D**
Tram Loading (5411)	A	A	A	I	I					A			3
Simpson (Back To The Future) (4407)		A	A	I	I			I	A	D**	2	8	
Back To The Future Air Dike							I	A				12	
Jurassic Park Show (3385)												4	
Escalator (3388)	A	A	A							D**	D		D
Bud Westmore Building (4250)											4	1	
Amphitheatre (5464)								I	A	A	10	**10 (2 replaced in October 2004)**	
Amphitheatre Air Dike								I	A			5	
Food Warehouse (6528) and Curious George Parking (6525)								I	A	A	5	9	
Jurassic Parking Structure (5543)											11		
Hard Rock Cafe (5538) and City Walk Expansion												7	
Technical Services (6511)	A	A	A									**3 (installed in February 2004)**	**2 - A, 4 - D**
Jurassic Parking and Food Warehouse Dikes								I	A			**30- A, 1-D (3 replaced in October 2004; 3 replaced in May 2006)**	
Cinemas – Cineplex (5515)	A	A	A					I	A	D**		**5-A, 1-D (replaced in October 2004)**	**16 –A, 1-D**
Cinemas – (IMAX (5515)	A	A	A					I	A	D**		6	4
Studio Grill (4499)											3	14	
Waterworld Pumphouse (4488)	A												4
Beetlejuice (4421)	A												1
Caribbean Chill (4423)	A												1
Animal Actors (4431-2)												2	
Food Service Storage (4443)	A											**2- A (1 replaced in October 2004)**	**2-A**
Wild Wild West (4442)												6	
Nickelodeon (4457)												3	
Food Cart Warehouse (4467)												4	
Nickelodeon Retail (4449)												**1 replaced in October 2004**	**1-A**
KidZone	A	A	A									4	4
Cartooniversal (4465)												4	

Warlord Tower (4438)												D	
Multi-Use Venue (3458/4471)												4	
Frankenstein Parking Structure (3432)											8	6	
Sky Venture Attraction (6520)													10

Notes: *---Amblin Trailers: Probes originally installed in 1992 to protect Reitman Building (6111).
** - LA County Dept of Public Works approved elimination of the sensors in November 2009
Escalator: Membrane under elevator and at Platforms N and P along buried wall and under solid pile, only. Vents under elevator and Platforms H, N, and P, only. Two subslab probes at Platform H and membrane probes at Platforms N and P and the elevator are mapped as missing.

the type of waste in the landfill, it is presumed that methane production from the landfill at the Project Site is probably in decline.[43]

Conclusions of the SWAQAT Report indicated that ambient air monitoring and comparison of upwind and downwind air samples at the landfill site showed very minor increases in some specified contaminants (1,1,1-trichloroethane, tetrachloroethylene, and methylene chloride), although at levels that are well below OSHA short-term exposure limit levels.

As part of the SCAQMD Rule 1150.1 monitoring, ambient air sampling is conducted at the Project Site landfill annually. Recent results (last two years of monitoring) show no detection of 1,1,1-trichloroethane, tetrachloroethylene, and methylene chloride.

6.2.2.3 Current Monitoring Activities

6.2.2.3.1 Los Angeles County Department of Public Works

As a condition for occupancy of a number of structures located within 1,000 feet of the landfill area, LACDPW has stipulated the following conditions:

- All soil gas monitoring probes shall be monitored for explosive gas during the first and third quarters.
- Soil gas monitoring probes within a limited special studies area shall be monitored for explosive gas during the second and fourth quarters.

Figure 6-1 shows the soil gas monitoring probe locations and the limited monitoring area. Soil gas monitoring is to continue until landfill gas no longer poses a threat to these structures. Various electronic sensors are maintained by the Applicant for detection of potential interior landfill methane, including systems installed at the tram garage, Universal City Cinemas, *Back-To-The Future* attraction, Gibson (formerly Universal) Amphitheatre, food warehouse, and tram loading facilities.

Quarterly reports have been submitted in accordance with the LACDPW requirements for monitoring and reporting of the methane collection and detection at the Project Site. Based on the results of the monitoring, all buildings monitored are free from hazardous concentrations of landfill gas and can be safely occupied.[44]

6.2.2.3.2 SCAQMD Rule 1150.1

Currently the Project Site complies with Rule 1150.1 landfill monitoring regulations. According to the Compliance Plan, variable frequency of the discrete monitoring and sampling events are required on a quarterly basis. Details of the monitoring/sampling/reporting requirements are included in the quarterly compliance reports.

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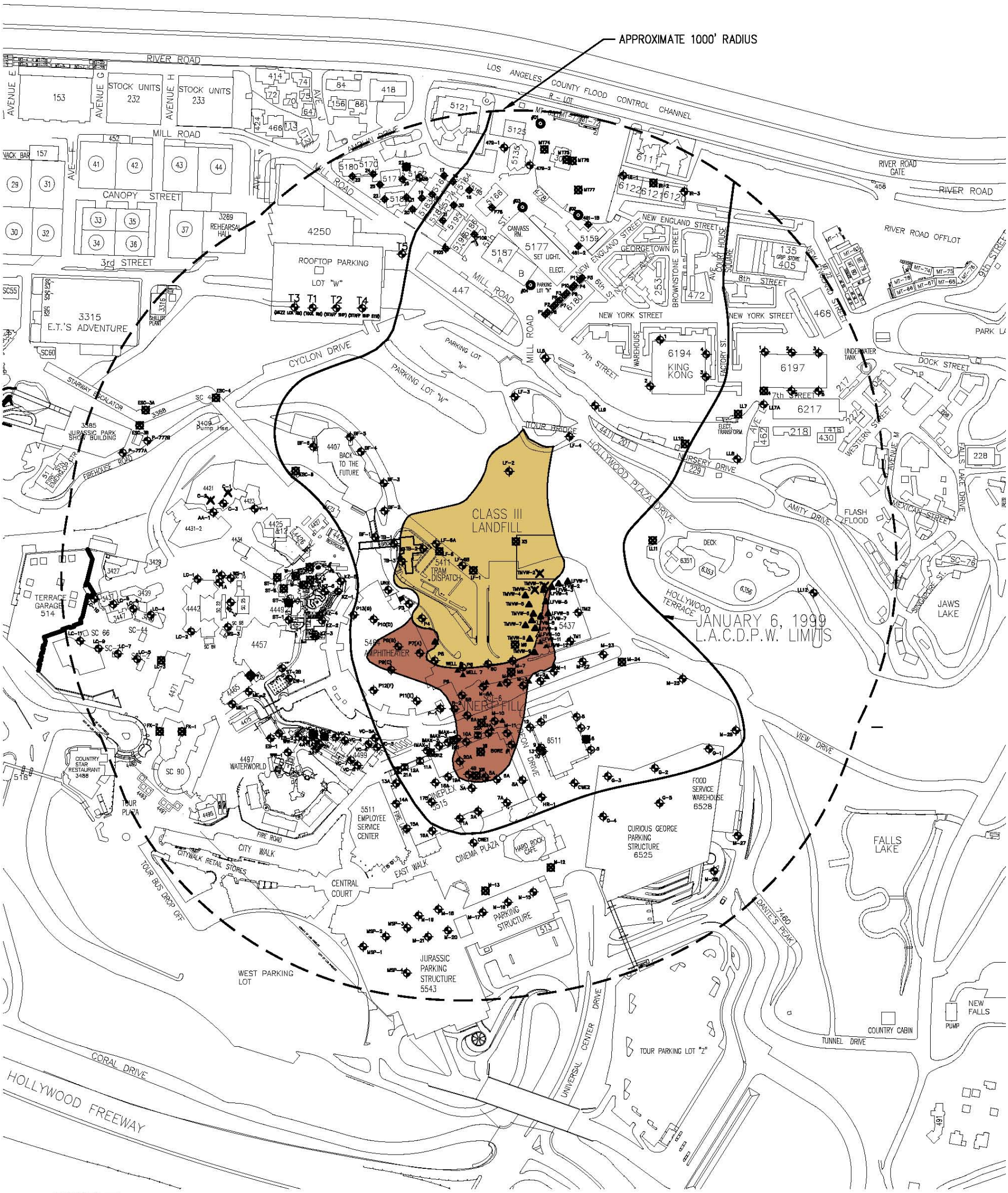
[43] Ibid.

[44] CDM; "Universal City Studios First Quarter 2008 Methane Monitoring Report", April 21, 2008.



NBC Universal Evolution Plan

Environmental Safety Technical Report

Landfill and Methane Probe Location Map

CDM

Figure 6-1

According to the first quarter 2008 SCAQMD Rule 1150.1 Compliance Report, there were no treated landfill gas flow limit or outlet concentration exceedances from the Tram Maintenance Garage landfill gas collection and treatment system. There were no exceedances of total organic carbon (TOC) during this quarter at the subsurface refuse boundary probes (SRBP) (compliance probes) or in the ambient air samples (AAS) and integrated landfill surface samples collected during this quarter. [45]

6.3 Impact Analysis

6.3.1 Methodology

The analysis of the potential impacts regarding the closed on-site landfill was based on Project Site evaluations, plans and information from the Applicant.

6.3.2 Significance Thresholds

Based on the factors described in Section 2.3.2, the Project would have a significant impact if:

- The Project would expose people to substantial risk resulting from the release or explosion of a hazardous material, or from exposure to a health hazard, in excess of regulatory standards.

6.3.3 Project Design Features

The existing closed landfill is located near the center of the Project Site. The vast majority of new development proposed as part of the Project, which is proposed primarily in the Mixed-Use Residential Area, and redevelopment of existing uses elsewhere on the Project Site, is expected to occur well away from the subject landfill. As indicated above in the discussion of Regulatory Framework (i.e., Section 6.2.1), the development and/or operation of uses above or near a known landfill are subject to a variety of federal, state, and local requirements designed to provide for acceptable levels of safety. The design, construction, and operation of uses proposed by the Project would be in accordance with the applicable federal, state, and local regulations related to environmental safety. No additional or specific design features related to environmental safety, with respect to the closed on-site landfill, are proposed.

6.3.4 Project Impacts

6.3.4.1 Construction

As detailed in Section 6.2.2.2.1 above, based on historical information and additional investigation, the SWAT concluded no hazardous or potentially hazardous materials have been disposed of at the landfill. In addition, monitoring conducted during the SWAT indicated no leakage of hazardous materials into the unsaturated zone and landfill leachate. However, existing leakage patterns at the landfill could change over time as part of the normal process of degradation in the landfill or as a result of

[45] CDM Letter Report to Mr. Joseph Bellas, Universal Studios, LLC“, SCAQMD Rule 1150.1 Compliance Report First Quarter 2008”, May 2, 2008.

surface and/or drainage modifications resulting from the Project. Therefore, development of the Project in proximity of the existing closed on-site landfill could potentially impact the current condition of the landfill, as well as potentially impact the development via gases emanating from the landfill. Potential leakage of certain materials from the landfill during construction activities could potentially expose people and the environment to hazardous materials.

Methane gas generation in a landfill is the result of the natural decay process that takes place within the landfill. In addition to the leakage of materials from the landfill, the migration of methane through soil may result in the build-up of gas in enclosed areas to a concentration that may potentially result in an explosion hazard, if not properly ventilated. At current levels and with existing methane migration, collection and detection systems, methane levels outside of the landfill footprint do not currently pose a hazard. In addition, as a condition for occupancy at a number of structures in the vicinity of the landfill area, existing soil gas monitoring probes are monitored on a quarterly basis. Based on the quarterly monitoring results, buildings are free from hazardous concentrations of landfill gas and can be safety occupied. The gas monitoring will continue until landfill gas no longer poses a potential threat to these structures. However, potential grading and surficial changes in the vicinity of the landfill could alter current conditions. Specifically, Project-related changes could affect the migration path or quantity of methane emanating from the landfill. However, if methane volume emanating from the landfill changes, the existing methane migration, collection and detection systems would make unlikely the potential for methane to build up in structures at the Project Site to potentially approach ignition levels.

The design and construction of development occurring within 1,000 feet of the closed on-site landfill would be required to comply with Section 110.3 of the Los Angeles County Building Code, as detailed in Section 6.2.1 above, which permits buildings or structures located within 1,000 feet of fills containing rubbish or other decomposable material if the fill is isolated by approved natural or artificial protective systems or if the buildings or structures are designed according to recommendations contained in a report prepared by a licensed civil engineer. As required by the Los Angeles County Code permit process, the proposed development within the 1,000 foot radius of the closed landfill would be designed and constructed according to the recommendations of a licensed civil engineer, and any methane mitigation recommendations shall be subject to the review and approval of the LACDPW. LACDPW has established landfill gas protection requirements, which includes details on site investigations, landfill gas protection systems, gas monitoring systems and programs, as well as contingency plan requirements.[46] The County of Los Angeles may accept alternate engineering controls and monitoring parameters on a case-by-case basis.

[46] Los Angeles County Department of Public Works; "Landfill Gas Protection Policy", paper presented at the Landfill Gas Assessment and Management Symposium, Ontario, California, April 8-9, 1998.

Additionally, pursuant to 27 CCR, Section 21190, all development within 1,000 feet of the closed on-site landfill would adhere to CIWMB established regulations addressing postclosure land use activities. The LEA for the closed on-site landfill, the LACDPW, will ensure that postclosure land use activities specifically address compliance with 27 CCR, Section 21190 and be approved by the LEA, LARWQCB, and CIWMB, as appropriate.

Review of the Citywide Methane Ordinance Map (A-20960) indicates that the Project Site is approximately 4,000 feet at its closest point to any of the Methane or Methane Buffer Zones. However, Section 91.7108 states that if the City of Los Angeles' Department of Building and Safety determines that a hazard may exist from methane intrusion to an area outside of the defined boundaries, the City's Department of Building Safety and the LAFD may enforce any or all of the requirements of Division 71 of this code on the Project Site. If the Mixed-Use Residential Area is annexed to the City, the City's Department of Building and Safety may require methane mitigation for structures in proximity to the closed landfill. The methane mitigation requirements of the City (as presented in Ordinance No 175,790) currently requires a methane site assessment to establish the appropriate methane mitigation level for design of the building methane mitigation system. The assessment consists of collection of soil gas samples to evaluate the maximum detected methane concentration in soil gas. Based on the results, a site is classified as requiring either Level I, II, III, IV or V methane mitigation requirements. At a minimum, all new structures subject to the methane mitigation requirements are required to have a passive system (such as, gravel blanket and impervious membrane).

In conclusion, construction of the Project in the area of the closed landfill would be undertaken in accordance with all applicable laws and regulations, including LACDPW methane regulations for new construction and, if applicable, the City's Department of Building and Safety and LAFD methane requirements under Division 71 of the City's Municipal Code. However, construction still has the potential to expose people and the environment to potentially hazardous conditions (including explosive and toxic concentrations of landfill gas and leachate from the landfill), if encountered. With implementation of mitigation (Section 6.4), potential impacts would be less-than-significant. No significant exposure of people to substantial risk resulting from the release or explosion of a hazardous material is anticipated.

6.3.4.2 Operation

As with construction, the potential leakage of certain materials from the landfill during operation could occur and potentially expose people and the environment to hazardous materials. Also, the migration of methane through soil may result in the build-up of gas in enclosed areas of new development to a concentration which may potentially result in an explosion hazard, if not properly ventilated. Specifically, Project-related changes in the migration path or quantity of methane emanating from the landfill could cause methane build-up in structures which could potentially approach ignition levels, although the existing methane migration, collection and detection systems make this unlikely.

The Applicant will continue subslab, soil gas and air monitoring in the proximity of the closed on-site landfill as required by the LACDPW and the SCAQMD. If monitoring indicates that the landfill is causing potential impacts in excess of applicable standards, then appropriate remediation measures will be implemented by the Applicant per direction from the LARWQCB, the LACDPW and/or the SCAQMD.

In addition, as described in Section 6.3.4.1 above, development of buildings and structures located within 1,000 feet of the closed on-site landfill would be required to comply with Section 110.3 of the Los Angeles County Building Code, which includes a process by which LACDPW would establish landfill gas protection requirements (which may include details on site investigations, landfill gas protection systems, gas monitoring systems and programs, as well as contingency plan requirements).

As described above in Section 6.3.4.1, if the Mixed-Use Residential Area is annexed to the City, the City's Department of Building and Safety may require methane mitigation for structures in proximity to the closed landfill.

In conclusion, operation of the Project in the area of the closed landfill would be undertaken in accordance with all applicable laws and regulations. Therefore, operation of the Project would not expose people to substantial risk resulting from the release or explosion of a hazardous material, or from exposure to a health hazard, in excess of regulatory standards. Therefore, no significant impacts associated with the closed on-site landfill are anticipated from operation of the Project.

As described in Section 1.4, a portion of the Project Site (approximately 76 acres within the Mixed-Use Residential Area) may be annexed from the County's jurisdiction into the City of Los Angeles and small areas of the property where the boundary lines intrude into buildings or otherwise need adjustment may be deattached from the City to the unincorporated County. With the exception of the City's methane mitigation requirements being triggered (as described above), if the annexation and detachment is approved, the appropriate lead agency's policies and procedures would remain and be applicable to the areas within the new City/County boundaries. The analysis of the impacts associated with the operation of the Project would remain the same as described above if annexation/detachment occurs.

6.4 Mitigation Measures

Compliance with all applicable laws, rules and regulations (plans, programs and policies) associated with the closed on-site landfill will minimize impacts to human health and the environment. Following are the existing plans, programs and policies (PPP) that address potential environmental impacts from methane gas migration from the closed on-site landfill:

PPP-HAZ-6 The Project shall continue to comply with the applicable regulations and requirements related to the closed on-site landfill, as required by the South Coast Air Quality Management District (SCAQMD) and the

Los Angeles County Department of Public Works (LACDPW), or the City of Los Angeles Department of Building and Safety.

Construction of all new development located within alluvium or non-engineered fill associated with the existing landfill footprint shall require the following mitigation measures:

MM-HAZ-2 As required by the Occupational Safety and Health Administration (OSHA), a Construction Worker Safety Plan shall be developed by each contractor working within the footprint of the landfill. The Construction Worker Safety Plan shall comply with OSHA Safety and Health Standards 29 CFR 1910.120, the California Code of Regulations, Title 8, General Industry Safety Orders, and U.S. OSHA. The Plan shall include requirements associated with potential exposure to landfill gases. In addition, construction personnel shall wear protective equipment and clothing and other safety equipment, as appropriate, in accordance with the Construction Worker Safety Plan and/or Project Site-specific safety plans, as applicable.

MM-HAZ-3 Construction of all new development within 1,000 feet of the landfill shall be designed and constructed to prevent gas migration into the buildings in accordance with recommendations of a licensed civil engineer. The recommendations shall be subject to the review and approval of the Los Angeles County Department of Public Works.

MM-HAZ-4 For areas of the Project Site in the City of Los Angeles, should the City's Department of Building and Safety determine that a hazard may exist from methane intrusion due to proximity to the closed on-site landfill, construction of new development within 1,000 feet of the closed on-site landfill shall comply with the requirements of the Citywide Methane Ordinance.

Operation of development within 1,000 feet of the landfill, or development constructed with methane safety systems, shall require the following mitigation measure:

MM-HAZ-5 During operation, monitoring of methane safety systems shall occur in accordance with County or City requirements, as applicable.

6.5 Unavoidable Adverse Impacts

Significant adverse impacts would be avoided through implementation of existing regulatory requirements and the above mitigation measure. As discussed above, the Project would not expose people to substantial risk resulting from the release or explosion of a hazardous material, or from exposure to a health hazard, in excess of regulatory standards. As such, impacts would be less than significant.

Section 7
Radio Frequency (RF)

7.1 Introduction

Electric and magnetic energy moves together (that is, radiates) through space at the speed of light. Together, electric and magnetic energy waves make up electromagnetic energy. The term electromagnetic field or radio frequency (RF) field is often used to indicate the presence of electromagnetic or RF energy. A very important use for RF energy is in providing telecommunication services. A few examples of telecommunication applications that use RF energy includes radio and television broadcasting, radio communications for police and fire services, cellular telephones, amateur radio, microwave point-to-point links, and satellite communications. Microwave ovens are an example of a noncommunication use of RF energy.[47]

Because RF electromagnetic waves do not have enough energy to induce ionization (a process which strips electrons from atoms and molecules), they are characterized as "non-ionizing radiation." Studies have shown that the primary health concern attributed to non-ionizing radiation results from exposure to very high levels of RF radiation. Exposure to such high levels of RF radiation can cause biological tissue to heat rapidly (also referred to as thermal effects), resulting in an increase in body temperature and tissue damage. Studies on low levels of RF radiation exposure (levels lower than those that would cause thermal effects) have not shown conclusive evidence of biological effects. Although there has been no determination that low level exposure to RF radiation constitutes a human health hazard, the latest experimental findings are monitored by the standard-setting organizations to confirm their validity and determine whether changes in safety limits are needed to protect human health.[48][49]

7.2 Environmental Setting

Following is a description of the regulatory setting and the existing physical conditions of the Project Site related to potential RF safety hazards.

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[47] Health Physics Society, Kelly Classic, "Radiofrequency (RF) Radiation," http://hps.org/hpspublications/articles/rfradiation.html – last accessed August 16, 2007.

[48] Federal Communications Commission, Office of Engineering and Technology. "Radio Frequency Safety," http://www.fcc.gov/oet/rfsafety/rf-faqs.html– last accessed May 1, 2008.

[49] The standard-setting organizations that have been involved in monitoring and investigating issues related to RF exposure, and the Federal health and safety agencies that the Federal Communications Commission has consulted with in adopting safety guidelines for evaluating RF environmental exposure, include the EPA, U.S. Food and Drug Administration (FDA), the National Institute for Occupational Safety and Health, and OSHA. In addition, the FCC guidelines for human exposure to RF electromagnetic fields were derived from the recommendations of two expert organizations, the National Council on Radiation Protection and Measurements and the Institute of Electrical and Electronics Engineers.

7.2.1 Regulatory Framework

The main regulations associated with RF safety are associated with the Federal Communications Commission (FCC) and OSHA. The FCC is an independent United States government agency, directly responsible to Congress, which regulates interstate and international communications by radio, television, wire, satellite and cable. The FCC's RF safety regulations require that all transmitting sites in the United States have met all aspects of the FCC regulations as of September 1, 2000. The regulations set limits for human exposure for the following two groups:

- Occupational (Controlled), which includes workers who are fully aware and able to exercise control over their exposure to RF
- General Population (Uncontrolled), which includes all those who do not fall into the Occupational group

For the Project Site, the potential for RF exposure is considered more of a worker safety hazard than one to the general public, as described in greater detail in Section 7.3.4 below. As it relates to Occupational (Controlled) exposure, the current FCC regulations refer to requirements that maintenance personnel be *fully aware* and *exercise control* when working in an area with a potential for RF radiation exposure. This phrase refers to maintenance personnel that have received written and verbal information, and training on how to control or mitigate RF radiation exposure (including using engineering controls and procedures to reduce exposure as well as protective clothing).

The FCC exposure limits include Maximum Permissible Exposure (MPE) limits averaged over the body and averaged over time. A summary of the RF Exposure Guidelines and the MPE limits for various frequency ranges can be found in Appendix A of the FCC's Office of Engineering & Technology (OET) Bulletin 65,[50] and is summarized in Section 3 of the RF safety analysis performed specifically for the Project (refer to Appendix B of this Environmental Safety Technical Report for a copy of the RF Safety Report).

7.2.2 Existing Conditions

There are no known sources of significant RF energy currently present at the site.[51] Currently, the existing antennas at the Project Site include receive-only (RO) satellite antennas and microwave point-to-point antennas. RO antennas do not transmit

[50] Federal Communications Commission, Office of Engineering and Technology (OET). "Evaluating Compliance with FCC Guidelines for Human Exposure to Radiofrequency Electromagnetic Fields." OET Bulletin 65. http://www.fcc.gov/Bureaus/Engineering_Technology/Documents/bulletins/oet65/oet65.pdf– last accessed August 21, 2007.

[51] RF Safety Solutions LLC. "RF Safety Report: An Analysis of RF Field Levels at the NBC Universal Property in Universal City, California," December 2009 (This report is included as Appendix B to this technical report).

energy; therefore, operation of RO antennas does not present an RF safety concern. Typical microwave point-to-point antennas operate at a maximum power of 2 Watts, which does not represent an energy level that is a safety concern even for someone standing directly in front of the antenna. [52]

The Applicant currently has an RF Radiation Safety and Health Program, which includes RF safety training.

7.3 Impact Analysis

7.3.1 Methodology

The analysis of the potential RF safety impacts associated with the placement of several satellite-uplink antenna systems and possibly a variety of wireless communication antennas (i.e., for two-way radio, fire, police and emergency service systems), including cellular systems at the Project Site was based on general information regarding RF and a Project Site evaluation, including calculations, by an RF safety expert (RF Safety Report, included as Appendix B).

7.3.2 Significance Thresholds

Although no specific significance threshold exists concerning potential for an RF safety hazard, based on the factors described in Section 2.3.2, the Project would have a significant impact if:

- The Project would expose people to substantial risk resulting from the release or explosion of a hazardous material, or from exposure to a health hazard, in excess of regulatory standards.

7.3.3 Project Design Features

The proposed satellite-uplink antenna systems and variety of wireless communication antennas would be located and operated in accordance with applicable federal, state, and local regulations that would limit exposure of persons (particularly workers) to potential RF levels. In addition, the Applicant's existing RF Radiation Safety and Health Program would be updated and additional training given to maintenance personnel, as appropriate.

7.3.4 Project Impacts

7.3.4.1 Construction

The proposed Project involves the construction and operation of several satellite-uplink antenna systems and possibly a variety of wireless communication antennas (i.e., for two-way radio, fire, police and emergency service systems), including cellular systems. There are no known sources of significant RF energy currently at the site and

[52] RF Safety Solutions LLC. "RF Safety Report: An Analysis of RF Field Levels at the NBC Universal Property in Universal City, California," December 2009 (This report is included as Appendix B to this technical report).

the Project does not involve removal of any existing antennas. As potential RF radiation is a result of energy from the operation of an antenna that transmits energy, the construction of the Project in itself would not result in an RF safety hazard. Therefore, no impact associated with RF is anticipated from construction of the Project.

7.3.4.2 Operation

Satellite-Uplink Antennas[53]

The types of satellite-uplink antennas proposed as part of the Project are known as "reflector" antennas. There are three basic antenna configurations being considered for installation:

- A 2.4-meter-diameter antenna with a maximum input power of 125 Watts
- An 8.0-meter-diameter with a maximum input power of 200 Watts
- A 9.0-meter-diameter with a maximum input power of 200 Watts

The primary safety and compliance issues to be considered when locating satellite-uplink antennas include the following two points:

- If the maximum RF field level is less than the FCC's MPE limit for General Population/Uncontrolled exposure, the installation is compliant with the FCC Regulations, and there is no concern over anyone getting into the beam of the antenna.
- If the maximum RF field level exceeds the FCC's MPE limit for General Population/Uncontrolled exposure, the installation must be made in a way that prohibits anyone from getting into the beam of the antenna.

As detailed in Section 1 of Appendix B, the highest RF safety hazard would be present in the beam of the smallest (2.4-meter-diameter) antenna., For the 2.4-meter-diameter antenna, the calculated average RF field levels within the main beam is approximately 200 percent of the FCC's MPE limits for General Population (Uncontrolled) exposure when the system is operated at full power. The maximum calculated field level is four times higher than the average, or eight times the FCC's MPE limits for General Population (Uncontrolled) exposure, which also exceeds the MPE limit for Occupational (Controlled) exposure. The calculated maximum RF field level in the main beam of the proposed 8.0-meter-diameter antenna slightly exceeds the MPE limit for General Population (Uncontrolled) exposure. The calculated maximum RF field level in the main beam for the 9.0-meter-diameter antenna (largest) is slightly below the MPE limit for General Population (Uncontrolled) exposure. Because of their size and design (i.e., mounted with the lip of the reflector at least 5 feet above ground

[53] Satellite-uplink antennas transmit energy from the ground, or "uplink" to the satellite.

level), the beam of the larger antennas (such as the 8.0-meter- and 9.0-meter-diameter antennas) is normally not accessible to the general population without using a ladder or other mechanical device.

It is not anticipated that the proposed satellite-uplink antennas would be located in areas of the Project Site where the general public would have access. With reflector antennas, such as the ones proposed, all of the energy is confined to a cylindrical beam. As the main safety consideration with the proposed types of antennas is at the area at the focal point of the antenna (the cylindrical beam area, or the area referred to as the "feed horn") where the energy is concentrated, the safety hazard would be limited to maintenance personnel. To perform maintenance on the antenna, the system would be shut off and locked out prior to maintenance activities. Therefore, the only time when energy would be outside the cylindrical beam would be if there was a leak in the waveguide transmission line.[54] A leak or breaks at junction points could potentially cause a significant RF safety hazard, particularly an eye hazard, for a distance up to about 3 feet from the leak point. Beyond the 3-foot area, no hazards would exist since the energy from the leak site would spread out and decrease rapidly with distance. Engineering controls will be included and safety procedures implemented that will address the discovery of a leak in the waveguide transmission line such that the potential RF safety hazard to maintenance personnel would be less than significant.

In addition, the 2.4-meter-diameter antennas present a potential significant safety hazard to personnel as the calculated RF field levels are too high to allow anyone other than a worker trained in RF safety to get within the beam of the antenna.

Wireless Services Antennas

Wireless services antennas are used for a broad variety of wireless services—cellular; PCS; paging; fire, police, and emergency services; and two-way radio. The antennas are either omnidirectional or they are directional. Omnidirectional antennas (commonly referred to as whip antennas, radiate equally over 360 degrees but have very little energy (only about 10 percent) directed upward or downward. Exposure concerns are limited to people who are within 20 feet of the antenna and at the same elevation. For example, if the bottom of the antenna is as little as 2 feet above your head, the average RF field level that you would be exposed to would still be below the FCC's MPE General Population (Uncontrolled) exposure. Directional antennas (commonly referred to as sector antennas) do not have significant amounts of energy directed above or below the antenna and there is virtually no energy to the sides or behind these antennas. Since the energy is directed over less than 360 degrees, the safe zone extends out further than with omnidirectional (whip) antennas. The most common directional (sector) antennas cover either 120-degree or 90-degree beams.

[54] Waveguide is a form of RF "plumbing" used to conduct microwave frequency energy inside small rectangular or circular pipes made of copper. Breaks at junction points can become eye hazards for a distance up to about 3 feet from the leak point.

Virtually all the energy for sector antennas is in the forward region/direction, with very little energy downward (typically at an angle of 4 degrees). Exposure concerns for sector antennas extend out to about 50 feet at the same elevation.

Although the Applicant would continue to comply with applicable laws regarding the operation of RF transmission equipment, there is the potential for the Project to expose people (specifically maintenance personnel) to a RF hazard. With regulatory compliance and proposed mitigation (refer to Section 7.4, below), the potential RF hazard would not result in a substantial risk resulting from the release or explosion of a hazardous material, or from exposure to a health hazard, in excess of regulatory standards. Therefore, no significant human exposure to RF energy or radiation is anticipated from the operation of the Project.

As described in Section 1.4, a portion of the Project Site (approximately 76 acres within the Mixed-Use Residential Area) may be annexed from the County's jurisdiction into the City of Los Angeles and small areas of the property where the boundary lines intrude into buildings or otherwise need adjustment may be detached from the City to the unincorporated County. Should the detachment and annexation be approved, the appropriate federal, state and/or lead agency's policies and procedures would remain and be applicable to the areas within the new City/County boundaries. The analysis of the impacts associated with the operation of the Project would remain the same as described above if detachment/annexation occurs.

7.4 Mitigation Measures

Compliance with all applicable laws, rules and regulations associated with installation and operation of the satellite-uplink antenna systems, including the updating (as necessary) of the existing RF Radiation Safety and Health Program for the Project Site, will minimize impacts to human safety and health. In addition, the following mitigation measures will be implemented to further reduce the potential RF hazard:

MM-HAZ-6 The Applicant or its successor shall locate and operate satellite-uplink antennas with an absolute minimum of 1 foot of separation between the eye level and all waveguide connections, waveguide components, and flexible waveguide. Exposure within 1 to 3 feet from waveguide shall be limited to less than one minute.

MM-HAZ-7 The Applicant or its successor shall develop and use a simple lockout, tagout procedure prior to the maintenance activities of satellite-uplink antennas (i.e., reflector antennas) to ensure that the high-power amplifiers cannot be energized while anyone is working on an antenna.

MM-HAZ-8 If a 2.4-meter-diameter antenna is installed so that the bottom lip of the antenna is less than 7 feet above ground, the Applicant or its successor shall install a barrier, such as a chain and stanchion barrier to be added in front on the antenna, to prevent access to the area directly in front of

the antenna. As appropriate, the width of the restricted access area shall be 10 feet wide, to ensure that no access to the area is possible by leaning over the chain. The distance in front of the antenna shall be determined based on the minimum elevation angle and height of the bottom lip of the antenna above the ground. The bottom lip of the antenna shall be a minimum of 7 feet above ground level at the chain. In addition, a warning/notice sign shall be hung on each side of the enclosure.

- As an alternative, 2.4-meter-diameter antenna(s) shall be mounted on a platform, with a chain and warning/notice sign on the platform stairs. The bottom lip of the antenna shall be a minimum of 7 feet above ground level.

MM-HAZ-9 The Applicant or its successor shall restrict access to the beam of the 2.4-meter-diameter antenna(s) only to workers trained in Radio Frequency safety.

MM-HAZ-10 Prior to operation of new antennas on the Project Site, the Applicant's existing Radio Frequency (RF) Radiation Safety and Health Program shall be updated and additional training given to maintenance personnel, as appropriate.

With implementation of the location specific antenna placement/configuration and access restriction mitigation measures, no significant RF safety hazard is anticipated from the operation of the proposed satellite-uplink antenna systems.

7.5 Unavoidable Adverse Impacts

As discussed above, implementation of existing regulatory requirements and placement and access restriction mitigation measures, the construction and operation of the Project would not expose people to substantial risk resulting from the release or explosion of a hazardous material, or from exposure to a health hazard, in excess of regulatory standards. As such, significant adverse impacts would be avoided.

Section 8
Cumulative Impacts

For the most part, the potential for environmental safety impacts of the Project would be unique to the site, not lending to cumulative effect in conjunction with related-projects (those projects identified as related-projects in the Draft EIR for the Project). Should related-projects include the use, storage, and/or disposal of hazardous materials, ACM, PCBs, or involve a landfill, those projects would also be required to comply with all applicable laws, rules and regulations. As such, no significant cumulative environmental safety impacts are anticipated.

For the most part, the potential for RF safety impacts of the Project would be unique to the site, not lending to cumulative effect in conjunction with related-projects. Should related-projects include the installation and operation of satellite-uplink antennas, or other antennas that could give off RF radiation, those projects would also be required to comply with all applicable laws, rules and regulations. As such, no significant cumulative RF safety impacts are anticipated.

Section 9
Preparers, Persons Contacted and References

9.1 Preparers

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Ravi Subramanian, P.E.
Dorothy Meyer
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Ed Song

9.2 Persons Contacted

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c/o NBC Universal
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Universal City, California 91608

Mark Lyum – West Coast Real Estate
Joseph Bellas, P.E. – Corporate Environmental Affairs
Max Liles – Hazardous Materials Operation
Michelle Richards – Environmental Programs

Technicolor, Inc.
North Hollywood Facility
4050 Lankershim Boulevard
North Hollywood, California 91604

Richard Brown – Manager, Environmental Health & Safety

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Appendix A
EDR Report

The EDR Radius Map
with GeoCheck®

Universal Studios
100 Universal City Plaza
Universal City, CA 91608

Inquiry Number: 1982523.1s

July 19, 2007

EDR® Environmental Data Resources Inc

The Standard in Environmental Risk Information

440 Wheelers Farms Road
Milford, Connecticut 06461

Nationwide Customer Service

Telephone: 1-800-352-0050
Fax: 1-800-231-6802
Internet: www.edrnet.com

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GEOCHECK ADDENDUM

Physical Setting Source Addendum	A-1
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Thank you for your business.
Please contact EDR at 1-800-352-0050
with any questions or comments.

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EXECUTIVE SUMMARY

A search of available environmental records was conducted by Environmental Data Resources, Inc (EDR). The report was designed to assist parties seeking to meet the search requirements of EPA's Standards and Practices for All Appropriate Inquiries (40 CFR Part 312), the ASTM Standard Practice for Environmental Site Assessments (E 1527-05) or custom requirements developed for the evaluation of environmental risk associated with a parcel of real estate.

TARGET PROPERTY INFORMATION

ADDRESS

100 UNIVERSAL CITY PLAZA
UNIVERSAL CITY, CA 91608

COORDINATES

Latitude (North):	34.138300 - 34° 8' 17.9''
Longitude (West):	118.351600 - 118° 21' 5.8''
Universal Tranverse Mercator:	Zone 11
UTM X (Meters):	375378.2
UTM Y (Meters):	3778120.8
Elevation:	741 ft. above sea level

USGS TOPOGRAPHIC MAP ASSOCIATED WITH TARGET PROPERTY

Target Property Map:	34118-B3 BURBANK, CA
Most Recent Revision:	1994

TARGET PROPERTY SEARCH RESULTS

The target property was identified in the following records. For more information on this property see page 6 of the attached EDR Radius Map report:

Site	Database(s)	EPA ID
UNIVERSAL STUDIOS 100 UNIVERSAL CITY PLZ. UNIVERSAL CITY, CA 91608	AST	N/A
TEXACO INC 100 UNIVERSAL CITY PLZ UNIVERSAL CITY, CA 91608	UST	N/A
ANDERSON VIDEO CO 100 UNIVERSAL CITY PLAZA BLDG UNIVERSAL CITY, CA 91608	RCRA-SQG FINDS	CAR000018747
UNIVERSAL STUDIOS 100 UNIVERSAL CITY PLAZA UNIVERSAL CITY, CA 91608	HAZNET Cortese	N/A
1X PACIFIC PHOTO EXPRESS 100 UNIVERSAL CITY PLAZA UNIVERSAL CITY, CA 91608	HAZNET	N/A

EXECUTIVE SUMMARY

PACIFIC PHOTO EXPRESS LTD 100 UNIVERSAL CITY PLAZA UNIVERSAL CITY, CA 91608	RCRA-SQG FINDS HAZNET	CAD982466138
MCA/UNIVERSAL 100 UNIVERSAL CITY PLZ 487 1 UNIVERSAL CITY, CA 91608	SWEEPS UST	N/A
UNDER WORLD PRODUCTION 100 UNIVERSAL CITY PLAZA 4 UNIVERSAL CITY, CA 91608	HAZNET	N/A
UNIVERSAL CITY INDUSTRIAL WASTE D 100 UNIVERSAL CITY PLAZA UNIVERSAL CITY, CA	SWF/LF	N/A
LIMITED DUMP 100 UNIVERSAL CITY PLAZA UNIVERSAL CITY (MOVIECA, CA 91608	WMUDS/SWAT EMI	N/A
MCA/UNIVERSAL 100 UNIVERSAL CITY PL UNIVERSAL CITY, CA 91608	CA FID UST	N/A

DATABASES WITH NO MAPPED SITES

No mapped sites were found in EDR's search of available ("reasonably ascertainable ") government records either on the target property or within the search radius around the target property for the following databases:

FEDERAL RECORDS

Proposed NPL ---- Proposed National Priority List Sites
Delisted NPL ---- National Priority List Deletions
NPL LIENS ---- Federal Superfund Liens
CERC-NFRAP ---- CERCLIS No Further Remedial Action Planned
CORRACTS ---- Corrective Action Report
RCRA-TSDF ---- Resource Conservation and Recovery Act Information
ERNS ---- Emergency Response Notification System
HMIRS ---- Hazardous Materials Information Reporting System
US INST CONTROL ---- Sites with Institutional Controls
DOD ---- Department of Defense Sites
FUDS ---- Formerly Used Defense Sites
US BROWNFIELDS ---- A Listing of Brownfields Sites
CONSENT ---- Superfund (CERCLA) Consent Decrees

EXECUTIVE SUMMARY

UMTRA Uranium Mill Tailings Sites
ODI Open Dump Inventory
TRIS Toxic Chemical Release Inventory System
TSCA Toxic Substances Control Act
FTTS FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)
SSTS Section 7 Tracking Systems
LIENS 2 CERCLA Lien Information
RADINFO Radiation Information Database
US CDL Clandestine Drug Labs
HIST FTTS FIFRA/TSCA Tracking System Administrative Case Listing
ICIS Integrated Compliance Information System
LUCIS Land Use Control Information System
DOT OPS Incident and Accident Data
PADS PCB Activity Database System
MLTS Material Licensing Tracking System
MINES Mines Master Index File
RAATS RCRA Administrative Action Tracking System

STATE AND LOCAL RECORDS

CA BOND EXP. PLAN Bond Expenditure Plan
SCH School Property Evaluation Program
Toxic Pits Toxic Pits Cleanup Act Sites
CA WDS Waste Discharge System
SWRCY Recycler Database
SLIC Statewide SLIC Cases
AOCONCERN San Gabriel Valley Areas of Concern
LIENS Environmental Liens Listing
CHMIRS California Hazardous Material Incident Report System
Notify 65 Proposition 65 Records
LA Co. Site Mitigation Site Mitigation List
DEED Deed Restriction Listing
VCP Voluntary Cleanup Program Properties
CDL Clandestine Drug Labs
RESPONSE State Response Sites

TRIBAL RECORDS

INDIAN RESERV Indian Reservations
INDIAN LUST Leaking Underground Storage Tanks on Indian Land
INDIAN UST Underground Storage Tanks on Indian Land

EDR PROPRIETARY RECORDS

Manufactured Gas Plants EDR Proprietary Manufactured Gas Plants

SURROUNDING SITES: SEARCH RESULTS

Surrounding sites were identified in the following databases.

Elevations have been determined from the USGS Digital Elevation Model and should be evaluated on a relative (not an absolute) basis. Relative elevation information between sites of close proximity should be field verified. Sites with an elevation equal to or higher than the target property have been differentiated below from sites with an elevation lower than the target property.
Page numbers and map identification numbers refer to the EDR Radius Map report where detailed data on individual sites can be reviewed.

Sites listed in ***bold italics*** are in multiple databases.

Unmappable (orphan) sites are not considered in the foregoing analysis.

EXECUTIVE SUMMARY

FEDERAL RECORDS

NPL: Also known as Superfund, the National Priority List database is a subset of CERCLIS and identifies over 1,200 sites for priority cleanup under the Superfund program. The source of this database is the U.S. EPA.

A review of the NPL list, as provided by EDR, and dated 04/20/2007 has revealed that there is 1 NPL site within approximately 1.5 miles of the target property.

Equal/Higher Elevation	Address	Dist / Dir	Map ID	Page
SAN FERNANDO VALLEY (AREA 2)	*CRYSTAL SPRINGS WELLFIE*	*0 - 1/8*	*0*	*15*

CERCLIS: The Comprehensive Environmental Response, Compensation and Liability Information System contains data on potentially hazardous waste sites that have been reported to the USEPA by states, municipalities, private companies and private persons, pursuant to Section 103 of the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA). CERCLIS contains sites which are either proposed to or on the National Priorities List (NPL) and sites which are in the screening and assessment phase for possible inclusion on the NPL.

A review of the CERCLIS list, as provided by EDR, and dated 02/27/2007 has revealed that there is 1 CERCLIS site within approximately 1 mile of the target property.

Equal/Higher Elevation	Address	Dist / Dir	Map ID	Page
SAN FERNANDO VALLEY (AREA 2)	*CRYSTAL SPRINGS WELLFIE*	*0 - 1/8*	*0*	*15*

RCRAInfo: RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. RCRAInfo replaces the data recording and reporting abilities of the Resource Conservation and Recovery Information System(RCRIS). The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Conditionally exempt small quantity generators (CESQGs) generate less than 100 kg of hazardous waste, or less than 1 kg of acutely hazardous waste per month. Small quantity generators (SQGs) generate between 100 kg and 1,000 kg of hazardous waste per month Large quantity generators generate over 1,000 kilograms (kg) of hazardous waste, or over 1 kg of acutely hazardous waste per month. Transporters are individuals or entities that move hazardous waste from the generator offsite to a facility that can recycle, treat, store, or dispose of the waste. TSDFs treat, store, or dispose of the waste.

A review of the RCRA-LQG list, as provided by EDR, and dated 06/13/2006 has revealed that there are 2 RCRA-LQG sites within approximately 0.75 miles of the target property.

Equal/Higher Elevation	Address	Dist / Dir	Map ID	Page
UNIVERSAL STUDIOS, LLC	*3900 LANKERSHIM BLVD*	*0 - 1/8*	*A13*	*28*
Lower Elevation	**Address**	**Dist / Dir**	**Map ID**	**Page**
TECHNICOLOR INCORPORATED	*4050 LANKERSHIM BOULEVA*	*1/2 - 1 WNW*	*M71*	*120*

EXECUTIVE SUMMARY

RCRAInfo: RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. RCRAInfo replaces the data recording and reporting abilities of the Resource Conservation and Recovery Information System(RCRIS). The database includes selective information on sites which generate, transport, store , treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Conditionally exempt small quantity generators (CESQGs) generate less than 100 kg of hazardous waste, or less than 1 kg of acutely hazardous waste per month. Small quantity generators (SQGs) generate between 100 kg and 1,000 kg of hazardous waste per month Large quantity generators generate over 1,000 kilograms (kg) of hazardous waste, or over 1 kg of acutely hazardous waste per month. Transporters are individuals or entities that move hazardous waste from the generator offsite to a facility that can recycle, treat, store, or dispose of the waste. TSDFs treat, store, or dispose of the waste.

A review of the RCRA-SQG list, as provided by EDR, and dated 06/13/2006 has revealed that there are 19 RCRA-SQG sites within approximately 0.75 miles of the target property.

Equal/Higher Elevation	Address	Dist / Dir	Map ID	Page
UNIVERSAL CITY HILTON TOWERS	*555 UNIVERSITY TERRACE*	*1/8 - 1/4 WSW*	*B25*	*56*

Lower Elevation	Address	Dist / Dir	Map ID	Page
UNIVERSAL CITY NISSAN	*3550 CAHUENGA BLVD WEST*	*1/4 - 1/2 SW*	*D32*	*63*
HANNA-BARBERA PRODUCTIONS, INC	*3400 CAHUENGA BLVD*	*1/4 - 1/2 S*	*E36*	*68*
VANGUARD PHOTOGRAPHY, INC	*3371 CAHUENGA BLVD WEST*	*1/4 - 1/2 S*	*E38*	*69*
SHERATON UNIVERSAL HOTEL	*333 UNIVERSAL TERRACE P*	*1/4 - 1/2 W*	*F44*	*80*
UNITEL VIDEO INC	*3330 CAHUENGA BLVD WEST*	*1/2 - 1 S*	*G45*	*84*
TEXACO	*10 UNIVERSAL CITY PLAZA*	*1/2 - 1 WNW*	*I52*	*94*
EASTABROOK PHOTOGRAPHY	*3281 OAKSHIRE DR*	*1/2 - 1 S*	*G55*	*97*
COMPUTOR COLOR CORP	*3711 CAHUENGA BLVD*	*1/2 - 1 WSW*	*J62*	*108*
HOWARD A ANDERSON CO	*4050 LANKERSHIM BLVD 50*	*1/2 - 1 WNW*	*I63*	*108*
BOINK SCREENERS	*3717 CAHUENGA BLVD W*	*1/2 - 1 WSW*	*J64*	*109*
TRIM CLEANERS OF HOLLYWOOD	*3270 CAHUENGA BLVD WEST*	*1/2 - 1 SSE*	*L66*	*110*
CHEVRON STATION NO 96311	*3780 CAHUENGA BLVD*	*1/2 - 1 WSW*	*N74*	*128*
CALIFORNIA AUTO BODY	*3241 W CAHUENGA BLVD*	*1/2 - 1 SSE*	*P83*	*136*
LA PUMPING PLANT #16	*4080 CAHUENGA BLVD*	*1/2 - 1 WNW*	*M85*	*138*
WINDSOR CLEANERS	*10606 VENTURA BLVD*	*1/2 - 1 W*	*O92*	*144*
LA PARSHALL FLUME GAUGE BLDG	*0 FOREST LAWN DR*	*1/2 - 1 ENE*	*93*	*150*
LASER TECHNOLOGY INC	*10624 VENTURA BLVD*	*1/2 - 1 W*	*94*	*151*
TOYOTA OF NORTH HOLLYWOOD	*4100 LANKERSHIM*	*1/2 - 1 NW*	*95*	*153*

ENG CONTROLS: A listing of sites with engineering controls in place.

A review of the US ENG CONTROLS list, as provided by EDR, and dated 04/20/2007 has revealed that there is 1 US ENG CONTROLS site within approximately 1 mile of the target property.

Equal/Higher Elevation	Address	Dist / Dir	Map ID	Page
SAN FERNANDO VALLEY (AREA 2)	*CRYSTAL SPRINGS WELLFIE*	*0 - 1/8*	*0*	*15*

RODS: Record of Decision. ROD documents mandate a permanent remedy at an NPL (Superfund) site containing technical and health information to aid the cleanup.

A review of the ROD list, as provided by EDR, and dated 03/27/2007 has revealed that there is 1 ROD site within approximately 1.5 miles of the target property.

Equal/Higher Elevation	Address	Dist / Dir	Map ID	Page
SAN FERNANDO VALLEY (AREA 2)	*CRYSTAL SPRINGS WELLFIE*	*0 - 1/8*	*0*	*15*

FINDS: The Facility Index System contains both facility information and "pointers" to other sources of information that contain more detail. These include: RCRIS; Permit Compliance System (PCS); Aerometric Information Retrieval System (AIRS); FATES (FIFRA [Federal Insecticide Fungicide Rodenticide Act] and TSCA Enforcement System, FTTS [FIFRA/TSCA Tracking System]; CERCLIS; DOCKET (Enforcement Docket used to manage and track information on civil judicial enforcement cases for all environmental statutes); Federal Underground Injection Control (FURS); Federal Reporting Data System (FRDS); Surface Impoundments (SIA); TSCA Chemicals in Commerce Information System (CICS); PADS; RCRA-J (medical waste transporters/disposers); TRIS; and TSCA. The source of this database is the U.S. EPA/NTIS.

A review of the FINDS list, as provided by EDR, and dated 04/12/2007 has revealed that there are 6 FINDS sites within approximately 0.5 miles of the target property.

Equal/Higher Elevation	Address	Dist / Dir	Map ID	Page
SAN FERNANDO VALLEY (AREA 2)	*CRYSTAL SPRINGS WELLFIE*	*0 - 1/8*	*0*	*15*
UNIVERSAL CITY HILTON TOWERS	*555 UNIVERSITY TERRACE*	*1/8 - 1/4 WSW*	*B25*	*56*

Lower Elevation	Address	Dist / Dir	Map ID	Page
UNIVERSAL CITY NISSAN	*3550 CAHUENGA BLVD WEST*	*1/4 - 1/2 SW*	*D32*	*63*
HANNA-BARBERA PRODUCTIONS, INC	*3400 CAHUENGA BLVD*	*1/4 - 1/2 S*	*E36*	*68*
VANGUARD PHOTOGRAPHY, INC	*3371 CAHUENGA BLVD WEST*	*1/4 - 1/2 S*	*E38*	*69*
SHERATON UNIVERSAL HOTEL	*333 UNIVERSAL TERRACE P*	*1/4 - 1/2 W*	*F44*	*80*

STATE AND LOCAL RECORDS

HIST CAL-SITES: Formerly known as ASPIS, this database contains both known and potential hazardous substance sites. The source is the California Department of Toxic Substance Control. No longer updated by the state agency. It has been replaced by ENVIROSTOR.

A review of the HIST Cal-Sites list, as provided by EDR, and dated 08/08/2005 has revealed that there is 1 HIST Cal-Sites site within approximately 1 mile of the target property.

Equal/Higher Elevation	Address	Dist / Dir	Map ID	Page
SAN FERNANDO VALLEY (AREA 2)	*CRYSTAL SPRINGS WELLFIE*	*0 - 1/8*	*0*	*15*

WMUDS/SWAT: The Waste Management Unit Database System is used for program tracking and inventory of waste management units. The source is the State Water Resources Control Board.

A review of the WMUDS/SWAT list, as provided by EDR, and dated 04/01/2000 has revealed that there is 1 WMUDS/SWAT site within approximately 1 mile of the target property.

Lower Elevation	Address	Dist / Dir	Map ID	Page
BLUFFSIDE & WILLOWCREST	BLUFFSIDE DR / WILLOW	1/2 - 1 WNW	84	137

EXECUTIVE SUMMARY

CORTESE: This database identifies public drinking water wells with detectable levels of contamination, hazardous substance sites selected for remedial action, sites with known toxic material identified through the abandoned site assessment program, sites with USTs having a reportable release and all solid waste disposal facilities from which there is known migration. The source is the California Environmental Protection Agency/Office of Emergency Information.

A review of the Cortese list, as provided by EDR, and dated 04/01/2001 has revealed that there are 8 Cortese sites within approximately 1 mile of the target property.

Equal/Higher Elevation	Address	Dist / Dir	Map ID	Page
UNIVERSAL STUDIOS-STAGE #	3900 LANKERSHIM	0 - 1/8	A16	39

Lower Elevation	Address	Dist / Dir	Map ID	Page
DEIRMENDJIAN EXXON STATION	***3640 CAHUENGA BLVD***	***1/2 - 1 WSW***	***H49***	***89***
TEXACO OFFICE BUILDING	***10 UNIVERSAL PLAZA***	***1/2 - 1 WNW***	***I50***	***90***
ARCO #6143	***3704 CAHUENGA***	***1/2 - 1 WSW***	***J56***	***98***
TECHNICOLOR INC	***4050 LANKERSHIM BLVD***	***1/2 - 1 WNW***	***M73***	***126***
10 UNIVERSAL CITY PLAZA	3838 LANKERSHIM	1/2 - 1 W	O82	135
MOBIL #11-F6E	3240 CAHUENGA BLVD W	1/2 - 1 SSE	P89	141
SHELL BRANDED SERVICE STATION	***3151 CAHUENGA BLVD W***	***1/2 - 1 SSE***	***96***	***154***

LUST: The Leaking Underground Storage Tank Incident Reports contain an inventory of reported leaking underground storage tank incidents. The data come from the State Water Resources Control Board Leaking Underground Storage Tank Information System.

A review of the LUST list, as provided by EDR, and dated 04/10/2007 has revealed that there are 11 LUST sites within approximately 1 mile of the target property.

Equal/Higher Elevation	Address	Dist / Dir	Map ID	Page
UNIVERSAL STUDIOS-STAGE #27 Facility Status: Case Closed	3900 LANKERSHIM BLVD	0 - 1/8	A15	37
UNIVERSAL STUDIOS (TRAM BLDG) Facility Status: Pollution Characterization	3900 LANKERSHIM BLVD N	0 - 1/8	A18	45

Lower Elevation	Address	Dist / Dir	Map ID	Page
EXXON #7-3017 Facility Status: Case Closed	3640 CAHUENGA BLVD	1/2 - 1 WSW	H47	86
TEXACO OFFICE BUILDING Facility Status: Case Closed	***10 UNIVERSAL PLAZA***	***1/2 - 1 WNW***	***I50***	***90***
10 UNIVERSAL CITY PLAZA Facility Status: Leak being confirmed	3838 LANKERSHIM BLVD	1/2 - 1 WNW	I53	94
ARCO #6143 Facility Status: Case Closed	3704 CAHUENGA BLVD	1/2 - 1 WSW	J59	101
ARCO #6143 Facility Status: Case Closed	***3704 CAHUENGA BLVD.***	***1/2 - 1 WSW***	***J60***	***104***
TECHNICOLOR INC Facility Status: Remedial action (cleanup) Underway	***4050 LANKERSHIM BLVD***	***1/2 - 1 WNW***	***M73***	***126***
CHEVRON #9-6311 Facility Status: Leak being confirmed	3780 CAHUENGA BLVD.	1/2 - 1 WSW	N78	132
MOBIL 18-F6E Facility Status: Pollution Characterization	3240 CAHUENGA BLVD W	1/2 - 1 SSE	P91	141

Lower Elevation	Address	Dist / Dir	Map ID	Page
SHELL BRANDED SERVICE STATION	***3151 CAHUENGA BLVD W***	***1/2 - 1 SSE***	***96***	***154***
Facility Status: Remedial action (cleanup) Underway				

CA FID: The Facility Inventory Database contains active and inactive underground storage tank locations. The source is the State Water Resource Control Board.

A review of the CA FID UST list, as provided by EDR, and dated 10/31/1994 has revealed that there are 19 CA FID UST sites within approximately 0.75 miles of the target property.

Equal/Higher Elevation	Address	Dist / Dir	Map ID	Page
UNIVERSAL STUDIOS/TRAM GARAGE	***3900 LANKERSHIM BLVD***	***0 - 1/8***	***A20***	***48***

Lower Elevation	Address	Dist / Dir	Map ID	Page
UNIVERSAL CITY NISSAN	3550 W CAHUENGA BLVD	1/4 - 1/2 SW	D33	65
SHERATON PREMIERE HOTEL	555 UNIVERSAL TERRACE P	1/4 - 1/2 W	F43	80
SHERATON UNIVERSAL HOTEL	***333 UNIVERSAL TERRACE P***	***1/4 - 1/2 W***	***F44***	***80***
DEIRMENDJIAN EXXON STATION	3640 CAHUENGA BLVD	1/2 - 1 WSW	H46	85
GETTY PLAZA	***10 UNIVERSAL CITY PLZ***	***1/2 - 1 WNW***	***I51***	***92***
LAKESIDE GOLF CLUB OF HOLLYWOO	***4201 CLYBOURN AVE***	***1/2 - 1 NNE***	***54***	***97***
ARCO #6143	***3704 CAHUENGA BLVD.***	***1/2 - 1 WSW***	***J60***	***104***
BUDGET RENT A CAR	***3885 LANKERSHIM BLVD***	***1/2 - 1 W***	***K65***	***110***
BLACK FALCON LTD	***3855 LANKERSHIM BLVD***	***1/2 - 1 W***	***K68***	***114***
LAKESIDE GOLF CLUB	***10340 VALLEY SPRING LN***	***1/2 - 1 NNW***	***69***	***115***
TECHNICOLOR INCORPORATED	***4050 LANKERSHIM BOULEVA***	***1/2 - 1 WNW***	***M71***	***120***
HARBANS SINGH	3780 CAHUENGA BLVD	1/2 - 1 WSW	N79	133
TUNTEX PROPERTIES INC	***3840 LANKERSHIM BLVD***	***1/2 - 1 W***	***O80***	***134***
SHERATON UNIVERSAL HOTEL	***3838 LANKERSHIM BLVD***	***1/2 - 1 W***	***O81***	***135***
CALIFORNIA AUTO BODY	***3241 W CAHUENGA BLVD***	***1/2 - 1 SSE***	***P83***	***136***
FOUR STAR VENTURA LTD	***10600 VENTURA BLVD***	***1/2 - 1 W***	***O86***	***139***
PAUL TALIEH-MOBIL-#14-192	3240 CAHUENGA BLVD	1/2 - 1 SSE	P88	141
TOYOTA OF NORTH HOLLYWOOD	***4100 LANKERSHIM***	***1/2 - 1 NW***	***95***	***153***

UST: The Underground Storage Tank database contains registered USTs. USTs are regulated under Subtitle I of the Resource Conservation and Recovery Act (RCRA). The data come from the State Water Resources Control Board's Hazardous Substance Storage Container Database.

A review of the UST list, as provided by EDR, and dated 04/10/2007 has revealed that there are 7 UST sites within approximately 0.75 miles of the target property.

Equal/Higher Elevation	Address	Dist / Dir	Map ID	Page
UNIVERSAL STUDIOS, INC	3900 LANKERSHIM BLVD	0 - 1/8	A12	27

Lower Elevation	Address	Dist / Dir	Map ID	Page
SHERATON PREMIERE HOTEL	***555 UNIVERSAL TERRACE P***	***1/4 - 1/2 W***	***F39***	***70***
SHERATON UNIVERSAL HOTEL	***333 UNIVERSAL TERRACE P***	***1/4 - 1/2 W***	***F44***	***80***
ARCO PRODUCTS COMPANY--#6143	3704 CAHUENGA BLVD	1/2 - 1 WSW	J57	100
TECHNICOLOR INCORPORATED	4050 LANKERSHIM BLVD	1/2 - 1 WNW	M72	126
CHEVRON STATION #9-6311	3780 CAHUENGA BLVD	1/2 - 1 WSW	N76	131
MOBIL SERVICE STATION F6E	3240 CAHUENGA BLVD W	1/2 - 1 SSE	P90	141

EXECUTIVE SUMMARY

HIST UST: Historical UST Registered Database.

A review of the HIST UST list, as provided by EDR, and dated 10/15/1990 has revealed that there are 9 HIST UST sites within approximately 0.75 miles of the target property.

Equal/Higher Elevation	Address	Dist / Dir	Map ID	Page
UNIVERSAL STUDIOS, LLC	***3900 LANKERSHIM BLVD***	***0 - 1/8***	***A13***	***28***

Lower Elevation	Address	Dist / Dir	Map ID	Page
UNIVERSAL CITY NISSAN	***3550 CAHUENGA BLVD***	***1/4 - 1/2 SW***	***D34***	***65***
SHERATON PREMIERE HOTEL	***555 UNIVERSAL TERRACE P***	***1/4 - 1/2 W***	***F39***	***70***
SHERATON UNIVERSAL HOTEL	***333 UNIVERSAL TERRACE P***	***1/4 - 1/2 W***	***F44***	***80***
EXXON SERVICE STATION	3640 CAHUENGA BLVD W	1/2 - 1 WSW	H48	88
JIRAIR G BEZIKIAN	3704 CAHUENGA BLVD	1/2 - 1 WSW	J58	100
96311	3780 CAHUENGA BLVD	1/2 - 1 WSW	N75	129
CALIFORNIA AUTO BODY	***3241 W CAHUENGA BLVD***	***1/2 - 1 SSE***	***P83***	***136***
10 UNIVERSAL CITY PLAZA	3800 LANKERSHIM BLVD	1/2 - 1 W	O87	139

SWEEPS: Statewide Environmental Evaluation and Planning System. This underground storage tank listing was updated and maintained by a company contacted by the SWRCB in the early 1980's. The listing is no longer updated or maintained. The local agency is the contact for more information on a site on the SWEEPS list.

A review of the SWEEPS UST list, as provided by EDR, and dated 06/01/1994 has revealed that there are 19 SWEEPS UST sites within approximately 0.75 miles of the target property.

Equal/Higher Elevation	Address	Dist / Dir	Map ID	Page
UNIVERSAL STUDIOS	TRAM GARAGE 3900 LANKER	0 - 1/8	A17	39
UNIVERSAL STUDIOS/TRAM GARAGE	***3900 LANKERSHIM BLVD***	***0 - 1/8***	***A20***	***48***

Lower Elevation	Address	Dist / Dir	Map ID	Page
UNIVERSAL CITY NISSAN	***3550 CAHUENGA BLVD***	***1/4 - 1/2 SW***	***D34***	***65***
SHERATON PREMIERE HOTEL	***555 UNIVERSAL TERRACE P***	***1/4 - 1/2 W***	***F39***	***70***
SHERATON UNIVERSAL HOTEL	***333 UNIVERSAL TERRACE P***	***1/4 - 1/2 W***	***F44***	***80***
DEIRMENDJIAN EXXON STATION	***3640 CAHUENGA BLVD***	***1/2 - 1 WSW***	***H49***	***89***
GETTY PLAZA	***10 UNIVERSAL CITY PLZ***	***1/2 - 1 WNW***	***I51***	***92***
LAKESIDE GOLF CLUB OF HOLLYWOO	***4201 CLYBOURN AVE***	***1/2 - 1 NNE***	***54***	***97***
ARCO PRODUCTS COMPANY	3704 N CAHUENGA BLVD	1/2 - 1 WSW	J61	106
BUDGET RENT A CAR	***3885 LANKERSHIM BLVD***	***1/2 - 1 W***	***K65***	***110***
BLACK FALCON LTD	***3855 LANKERSHIM BLVD***	***1/2 - 1 W***	***K68***	***114***
TECHNICOLOR	4050 LANKERSHIM BLVD	1/2 - 1 WNW	M70	117
TECHNICOLOR INCORPORATED	***4050 LANKERSHIM BOULEVA***	***1/2 - 1 WNW***	***M71***	***120***
HARBANS SINGH	3780 N CAHUENGA BLVD	1/2 - 1 WSW	N77	131
TUNTEX PROPERTIES INC	***3840 LANKERSHIM BLVD***	***1/2 - 1 W***	***O80***	***134***
SHERATON UNIVERSAL HOTEL	***3838 LANKERSHIM BLVD***	***1/2 - 1 W***	***O81***	***135***
CALIFORNIA AUTO BODY	***3241 W CAHUENGA BLVD***	***1/2 - 1 SSE***	***P83***	***136***
FOUR STAR VENTURA LTD	***10600 VENTURA BLVD***	***1/2 - 1 W***	***O86***	***139***
TOYOTA OF NORTH HOLLYWOOD	***4100 LANKERSHIM***	***1/2 - 1 NW***	***95***	***153***

EXECUTIVE SUMMARY

DRYCLEANERS: A list of drycleaner related facilities that have EPA ID numbers. These are facilities with certain SIC codes: power laundries, family and commercial; garment pressing and cleaners' agents; linen supply; coin-operated laundries and cleaning; drycleaning plants except rugs; carpet and upholster cleaning; industrial launderers; laundry and garment services.

A review of the CLEANERS list, as provided by EDR, and dated 04/18/2005 has revealed that there are 3 CLEANERS sites within approximately 0.75 miles of the target property.

Lower Elevation	Address	Dist / Dir	Map ID	Page
TRIM CLEANERS OF HOLLYWOOD	***3270 CAHUENGA BLVD WEST***	***1/2 - 1 SSE***	***L66***	***110***
TRIM CLEANERS	3270 CAHUEMENSA BLVD	1/2 - 1 SSE	L67	114
WINDSOR CLEANERS	***10606 VENTURA BLVD***	***1/2 - 1 W***	***O92***	***144***

HMS: Los Angeles County Industrial Waste and Underground Storage Tank Sites.

A review of the LOS ANGELES CO. HMS list, as provided by EDR, and dated 01/31/2007 has revealed that there are 3 LOS ANGELES CO. HMS sites within approximately 0.5 miles of the target property.

Lower Elevation	Address	Dist / Dir	Map ID	Page
WOLFGANG PUCK'S CAFE	***10 UNIVERSAL CITY PLAZA***	***1/4 - 1/2 NW***	***26***	***56***
SHERATON PREMIERE HOTEL	***555 UNIVERSAL TERRACE P***	***1/4 - 1/2 W***	***F39***	***70***
SHERATON UNIVERSAL HOTEL	***333 UNIVERSAL TERRACE P***	***1/4 - 1/2 W***	***F44***	***80***

WIP: Well Investigation Program case in the San Gabriel and San Fernando Valley area.

A review of the WIP list, as provided by EDR, and dated 03/01/2007 has revealed that there is 1 WIP site within approximately 0.75 miles of the target property.

Lower Elevation	Address	Dist / Dir	Map ID	Page
TECHNICOLOR INCORPORATED	***4050 LANKERSHIM BOULEVA***	***1/2 - 1 WNW***	***M71***	***120***
Facility Status: Active				

HAZNET: The data is extracted from the copies of hazardous waste manifests received each year by the DTSC. The annual volume of manifests is typically 700,000-1,000,000 annually, representing approximately 350,000-500,000 shipments. Data from non-California manifests & continuation sheets are not included at the present time. Data are from the manifests submitted without correction, and therefore many contain some invalid values for data elements such as generator ID, TSD ID, waste category, & disposal method. The source is the Department of Toxic Substance Control is the agency

A review of the HAZNET list, as provided by EDR, and dated 12/31/2005 has revealed that there are 16 HAZNET sites within approximately 0.5 miles of the target property.

Equal/Higher Elevation	Address	Dist / Dir	Map ID	Page
UNIVERSAL STUDIOS, LLC	***3900 LANKERSHIM BLVD***	***0 - 1/8***	***A13***	***28***
CAPTAIN COCONUTS	1000 UNIVERSAL CENTER	1/8 - 1/4 SSW	22	52
OUT TAKES INC	1000 UNIVERSAL CENTER D	1/8 - 1/4 S	23	53
UNIVERSAL CITY HILTON & TOWERS	555 UNIVERSAL TERRACE P	1/8 - 1/4 WSW	B24	54

Lower Elevation	Address	Dist / Dir	Map ID	Page
BANK OF AMERICA	110 UNIVERSAL CITY PLAZ	1/4 - 1/2 W	27	59
UNIVERSAL CAHUENGA MEDICAL GRO	3500 CAHUENGA BLVD W	1/4 - 1/2 SSW	C28	60

EXECUTIVE SUMMARY

Lower Elevation	Address	Dist / Dir	Map ID	Page
UNIVERSAL CITY NISSAN	3518 CAHUENGA	1/4 - 1/2 SW	C29	60
UNIVERSAL CITY DENTAL CENTER	3535 CAHUENGA BLVD W ST	1/4 - 1/2 SW	D30	60
EDWARD KATZ INTERNATIONAL	3535 CAHUENGA BLVD W ST	1/4 - 1/2 SW	D31	61
UNIVERSAL CITY NISSAN	***3550 CAHUENGA BLVD WEST***	***1/4 - 1/2 SW***	***D32***	***63***
HANNA BARBERA	3400 COHUENGA BLVD. W	1/4 - 1/2 S	E35	66
VANGUARD PHOTOGRAPHY	3371 CAHUENGA BLVD WEST	1/4 - 1/2 S	E37	69
UNIVERSAL SHERIDAN HOTEL	333 UNIVERSAL TERRACE P	1/4 - 1/2 W	F40	75
THE SHERATON UNIVERSAL HOTEL	***333 UNIVERSAL TERRACE P***	***1/4 - 1/2 W***	***F41***	***76***
NORITSU AMERICA CORP	333 UNIVERSAL TERRACE W	1/4 - 1/2 W	F42	79
SHERATON UNIVERSAL HOTEL	***333 UNIVERSAL TERRACE P***	***1/4 - 1/2 W***	***F44***	***80***

Emissions Inventory Data: Toxics and criteria pollutant emissions data collected by the ARB and local air pollution agencies

A review of the EMI list, as provided by EDR, and dated 12/31/2005 has revealed that there are 4 EMI sites within approximately 0.5 miles of the target property.

Equal/Higher Elevation	Address	Dist / Dir	Map ID	Page
UNIVERSAL STUDIOS/TRAM GARAGE	***3900 LANKERSHIM BLVD***	***0 - 1/8***	***A20***	***48***

Lower Elevation	Address	Dist / Dir	Map ID	Page
WOLFGANG PUCK'S CAFE	***10 UNIVERSAL CITY PLAZA***	***1/4 - 1/2 NW***	***26***	***56***
SHERATON PREMIERE HOTEL	***555 UNIVERSAL TERRACE P***	***1/4 - 1/2 W***	***F39***	***70***
THE SHERATON UNIVERSAL HOTEL	***333 UNIVERSAL TERRACE P***	***1/4 - 1/2 W***	***F41***	***76***

ENVIROSTOR: The Department of Toxic Substances Control's (DTSC's) Site Mitigation and Brownfields Reuse Program's (SMBRP's) EnviroStor database identifes sites that have known contamination or sites for which there may be reasons to investigate further. The database includes the following site types: Federal Superfund sites (National Priorities List (NPL)); State Response, including Military Facilities and State Superfund; Voluntary Cleanup; and School sites. EnviroStor provides similar information to the information that was available in CalSites, and provides additional site information, including, but not limited to, identification of formerly-contaminated properties that have been released for reuse, properties where environmental deed restrictions have been recorded to prevent inappropriate land uses, and risk characterization information that is used to assess potential impacts to public health and the environment at contaminated sites.

A review of the ENVIROSTOR list, as provided by EDR, and dated 05/29/2007 has revealed that there are 2 ENVIROSTOR sites within approximately 1.5 miles of the target property.

Equal/Higher Elevation	Address	Dist / Dir	Map ID	Page
SAN FERNANDO VALLEY (AREA 2)	***CRYSTAL SPRINGS WELLFIE***	***0 - 1/8***	***0***	***15***
Facility Status: Active				

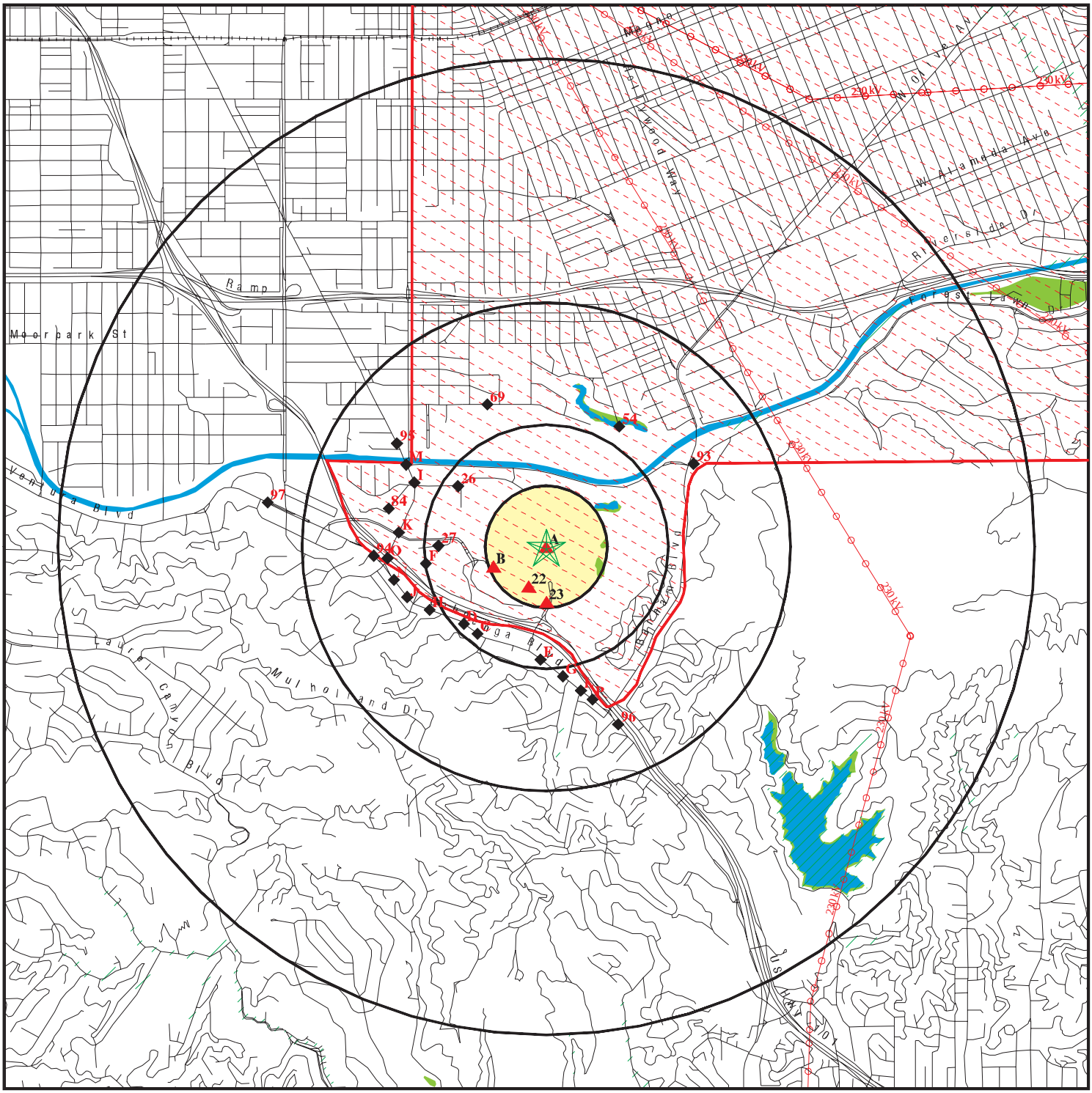
Lower Elevation	Address	Dist / Dir	Map ID	Page
ALL STAR CLEANERS	11050 VENTURA BLVD.	1 - 2 W	97	157
Facility Status: Refer: 1248 Local Agency				

EXECUTIVE SUMMARY

Due to poor or inadequate address information, the following sites were not mapped:

Site Name	Database(s)
PRODUCT DEVELOPMENT SERVICES(PDS)	FINDS, FTTS, HIST FTTS
LAKESIDE GOLF CLUB	SWEEPS UST
1X MCKESSON DRUG CO	HAZNET, LUST, CHMIRS
DUNRITE METAL PLATING	CERC-NFRAP
UNIVERSAL STUDIOS, INC (TRAM)	LUST
SHERATON UNIVERSAL HOTEL	VCP, ENVIROSTOR
MILLION AIR	RCRA-SQG, HAZNET
GTC MANAGEMENT SERVICES INC.	HAZNET
FORD THEATER	HAZNET
ADVANCED DIGITAL SERVICES INC	HAZNET
DEPT OF TRANSPORTATION	HAZNET
LA FIRE STATION 76	RCRA-SQG, FINDS, HAZNET
LOS ANGELES COUNTY FIRE DEPARTMENT	HAZNET
FUJI PHOTO FILM USA INC	HAZNET
HILTON HOTELS INC	HAZNET
JD BUILDERS	HAZNET
ARCO FACILITY NO 09513	RCRA-SQG, FINDS
DEPARTMENT OF TRANSPORTATION	FINDS, RCRA-LQG
OXNARD/VICTORY ELEMENTARY SCHOOL NO. 10	SCH, ENVIROSTOR
MULLER CORK CO	LOS ANGELES CO. HMS
AUTO PILOT! ENTERPRISES	LOS ANGELES CO. HMS
GRIFFIN STUDIOS	LOS ANGELES CO. HMS

OVERVIEW MAP - 1982523.1s



0 1/2 1 2 Miles

- Target Property
- Sites at elevations higher than or equal to the target property
- Sites at elevations lower than the target property
- Manufactured Gas Plants
- National Priority List Sites
- Dept. Defense Sites
- Indian Reservations BIA
- Power transmission lines
- Oil & Gas pipelines
- 100-year flood zone
- 500-year flood zone
- National Wetland Inventory
- Areas of Concern

N

SITE NAME: Universal Studios	CLIENT: Camp, Dresser & McKee, Inc.
ADDRESS: 100 Universal City Plaza Universal City CA 91608	CONTACT: Dorothy Meyer
LAT/LONG: 34.1383 / 118.3516	INQUIRY #: 1982523.1s
	DATE: July 19, 2007 8:25 am

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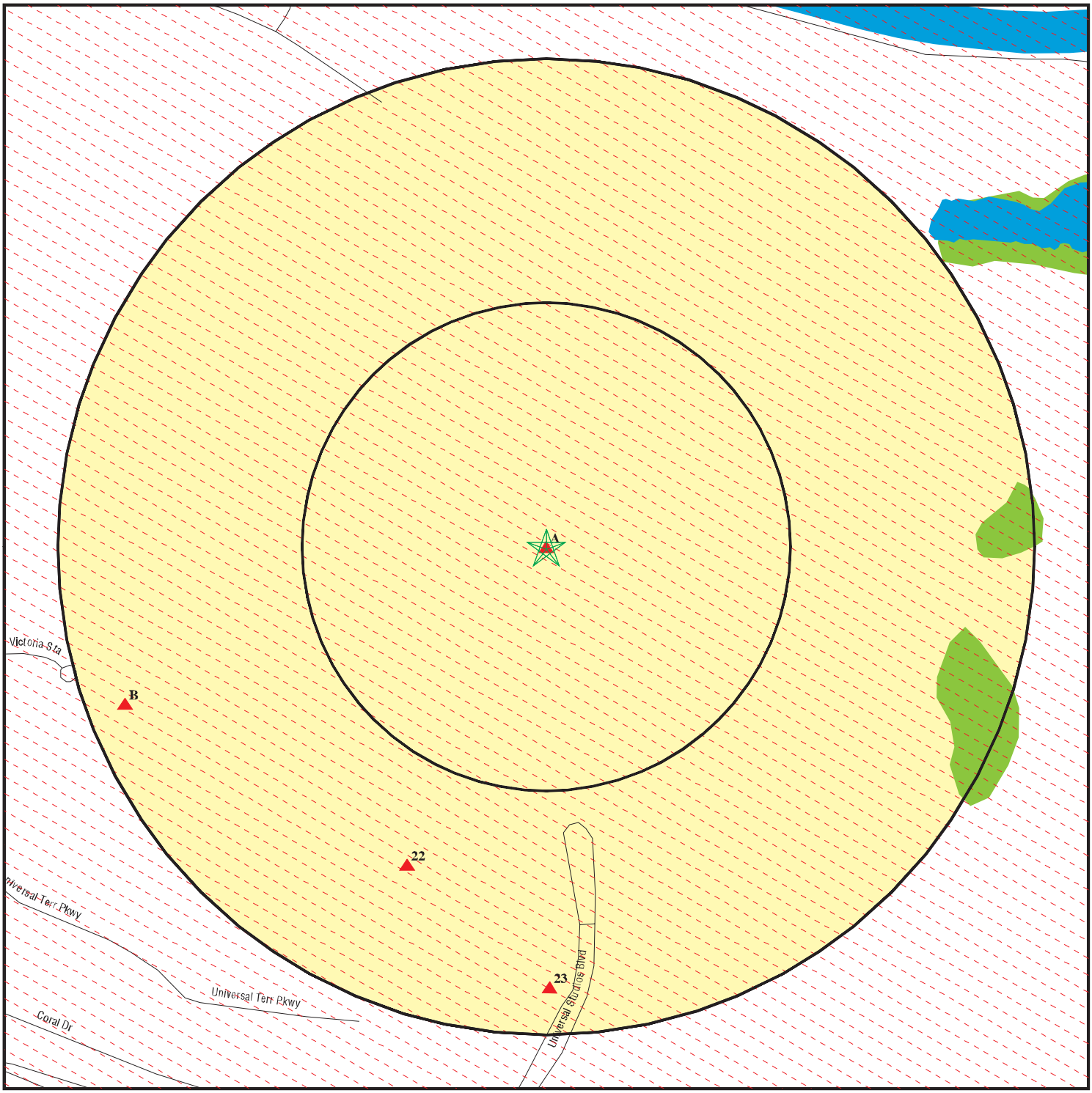
DETAIL MAP - 1982523.1s



- Target Property
- Sites at elevations higher than or equal to the target property
- Sites at elevations lower than the target property
- Manufactured Gas Plants
- Sensitive Receptors
- National Priority List Sites
- Dept. Defense Sites
- Indian Reservations BIA
- Oil & Gas pipelines
- 100-year flood zone
- 500-year flood zone
- National Wetland Inventory
- Areas of Concern

0 1/16 1/8 1/4 Miles

N

SITE NAME:	Universal Studios	CLIENT:	Camp, Dresser & McKee, Inc.
ADDRESS:	100 Universal City Plaza Universal City CA 91608	CONTACT:	Dorothy Meyer
LAT/LONG:	34.1383 / 118.3516	INQUIRY #:	1982523.1s
		DATE:	July 19, 2007 8:25 am

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MAP FINDINGS SUMMARY

Database	Target Property	Search Distance (Miles)	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
FEDERAL RECORDS								
NPL		1.500	1	0	0	0	0	1
Proposed NPL		1.000	0	0	0	0	NR	0
Delisted NPL		1.000	0	0	0	0	NR	0
NPL LIENS		TP	NR	NR	NR	NR	NR	0
CERCLIS		1.000	1	0	0	0	NR	1
CERC-NFRAP		0.500	0	0	0	NR	NR	0
CORRACTS		1.000	0	0	0	0	NR	0
RCRA TSD		0.500	0	0	0	NR	NR	0
RCRA Lg. Quan. Gen.		0.750	1	0	0	1	NR	2
RCRA Sm. Quan. Gen.	X	0.750	0	1	4	14	NR	19
ERNS		TP	NR	NR	NR	NR	NR	0
HMIRS		TP	NR	NR	NR	NR	NR	0
US ENG CONTROLS		1.000	1	0	0	0	NR	1
US INST CONTROL		0.500	0	0	0	NR	NR	0
DOD		1.000	0	0	0	0	NR	0
FUDS		1.000	0	0	0	0	NR	0
US BROWNFIELDS		0.500	0	0	0	NR	NR	0
CONSENT		1.000	0	0	0	0	NR	0
ROD		1.500	1	0	0	0	0	1
UMTRA		0.500	0	0	0	NR	NR	0
ODI		0.500	0	0	0	NR	NR	0
TRIS		TP	NR	NR	NR	NR	NR	0
TSCA		0.500	0	0	0	NR	NR	0
FTTS		TP	NR	NR	NR	NR	NR	0
SSTS		TP	NR	NR	NR	NR	NR	0
LIENS 2		TP	NR	NR	NR	NR	NR	0
RADINFO		TP	NR	NR	NR	NR	NR	0
CDL		TP	NR	NR	NR	NR	NR	0
HIST FTTS		TP	NR	NR	NR	NR	NR	0
ICIS		TP	NR	NR	NR	NR	NR	0
LUCIS		0.500	0	0	0	NR	NR	0
DOT OPS		TP	NR	NR	NR	NR	NR	0
PADS		TP	NR	NR	NR	NR	NR	0
MLTS		TP	NR	NR	NR	NR	NR	0
MINES		0.250	0	0	NR	NR	NR	0
FINDS	X	0.500	1	1	4	NR	NR	6
RAATS		TP	NR	NR	NR	NR	NR	0
STATE AND LOCAL RECORDS								
Hist Cal-Sites		1.000	1	0	0	0	NR	1
CA Bond Exp. Plan		1.000	0	0	0	0	NR	0
SCH		0.250	0	0	NR	NR	NR	0
Toxic Pits		1.000	0	0	0	0	NR	0
State Landfill	X	0.500	0	0	0	NR	NR	0
CA WDS		TP	NR	NR	NR	NR	NR	0
WMUDS/SWAT	X	1.000	0	0	0	1	NR	1
Cortese	X	1.000	1	0	0	7	NR	8

MAP FINDINGS SUMMARY

Database	Target Property	Search Distance (Miles)	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
SWRCY		0.500	0	0	0	NR	NR	0
LUST		1.000	2	0	0	9	NR	11
CA FID UST	X	0.750	1	0	3	15	NR	19
SLIC		0.500	0	0	0	NR	NR	0
AOCONCERN		1.000	0	0	0	0	NR	0
UST	X	0.750	1	0	2	4	NR	7
HIST UST		0.750	1	0	3	5	NR	9
AST	X	0.250	0	0	NR	NR	NR	0
LIENS		TP	NR	NR	NR	NR	NR	0
SWEEPS UST	X	0.750	2	0	3	14	NR	19
CHMIRS		TP	NR	NR	NR	NR	NR	0
Notify 65		1.000	0	0	0	0	NR	0
LA Co. Site Mitigation		TP	NR	NR	NR	NR	NR	0
DEED		0.500	0	0	0	NR	NR	0
VCP		0.500	0	0	0	NR	NR	0
DRYCLEANERS		0.750	0	0	0	3	NR	3
Los Angeles Co. HMS		0.500	0	0	3	NR	NR	3
WIP		0.750	0	0	0	1	NR	1
CDL		TP	NR	NR	NR	NR	NR	0
RESPONSE		1.500	0	0	0	0	0	0
HAZNET	X	0.500	1	3	12	NR	NR	16
EMI	X	0.500	1	0	3	NR	NR	4
ENVIROSTOR		1.500	1	0	0	0	1	2
TRIBAL RECORDS								
INDIAN RESERV		1.000	0	0	0	0	NR	0
INDIAN LUST		0.500	0	0	0	NR	NR	0
INDIAN UST		0.250	0	0	NR	NR	NR	0
EDR PROPRIETARY RECORDS								
Manufactured Gas Plants		1.000	0	0	0	0	NR	0

NOTES:

TP = Target Property

NR = Not Requested at this Search Distance

Sites may be listed in more than one database

A1 **UNIVERSAL STUDIOS** **AST** **A100176768**
Target **100 UNIVERSAL CITY PLZ.** **N/A**
Property **UNIVERSAL CITY, CA 91608**

Site 1 of 21 in cluster A

Actual:
744 ft.

AST:
Owner: UNIVERSAL STUDIOS, LLC
Total Gallons: 24845

A2 **TEXACO INC** **UST** **U003781706**
Target **100 UNIVERSAL CITY PLZ** **N/A**
Property **UNIVERSAL CITY, CA 91608**

Site 2 of 21 in cluster A

Actual:
744 ft.

UST:
Region: STATE
Local Agency: Los Angeles, Los Angeles County
Facility ID: 25482

A3 **ANDERSON VIDEO CO** **RCRA-SQG** **1001195308**
Target **100 UNIVERSAL CITY PLAZA BLDG** **FINDS** **CAR000018747**
Property **UNIVERSAL CITY, CA 91608**

Site 3 of 21 in cluster A

Actual:
744 ft.

RCRAInfo:
Owner: ANDERSON VIDEO CO
(818) 840-7000
EPA ID: CAR000018747

Contact: Not reported

Classification: Small Quantity Generator
TSDF Activities: Not reported

Violation Status: No violations found

FINDS:
Other Pertinent Environmental Activity Identified at Site

RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

A4 **UNIVERSAL STUDIOS** **HAZNET** **S100281006**
Target **100 UNIVERSAL CITY PLAZA** **Cortese** **N/A**
Property **UNIVERSAL CITY, CA 91608**

Site 4 of 21 in cluster A

Actual:
744 ft.

HAZNET:

Gepaid:	CAC002250641
Contact:	GENERAL ELECTRIC
Telephone:	2033732932
Facility Addr2:	Not reported
Mailing Name:	Not reported
Mailing Address:	3000 W ALAMEDA AVE RM 1657
Mailing City,St,Zip:	BURBANK, CA 915230000
Gen County:	Los Angeles
TSD EPA ID:	CAT000646117
TSD County:	Kings
Waste Category:	Latex waste
Disposal Method:	Treatment, Tank
Tons:	.3753
Facility County:	Los Angeles

Gepaid:	CAC002250641
Contact:	GENERAL ELECTRIC
Telephone:	2033732932
Facility Addr2:	Not reported
Mailing Name:	Not reported
Mailing Address:	3000 W ALAMEDA AVE RM 1657
Mailing City,St,Zip:	BURBANK, CA 915230000
Gen County:	Los Angeles
TSD EPA ID:	CAD008302903
TSD County:	Los Angeles
Waste Category:	Latex waste
Disposal Method:	Transfer Station
Tons:	1.7305
Facility County:	Los Angeles

Gepaid:	CAC002250641
Contact:	GENERAL ELECTRIC
Telephone:	2033732932
Facility Addr2:	Not reported
Mailing Name:	Not reported
Mailing Address:	3000 W ALAMEDA AVE RM 1657
Mailing City,St,Zip:	BURBANK, CA 915230000
Gen County:	Los Angeles
TSD EPA ID:	CAD008302903
TSD County:	Los Angeles
Waste Category:	Other organic solids
Disposal Method:	Recycler
Tons:	.0525
Facility County:	Los Angeles

Cortese:

Region:	CORTESE
Facility Addr2:	Not reported

A5
Target
Property

1X PACIFIC PHOTO EXPRESS
100 UNIVERSAL CITY PLAZA
UNIVERSAL CITY, CA 91608

HAZNET

S103947524
N/A

Site 5 of 21 in cluster A

Actual:
744 ft.

HAZNET:

Gepaid:	CAD982468746
Contact:	JAN GERSTEL
Telephone:	8187662599
Facility Addr2:	Not reported
Mailing Name:	Not reported
Mailing Address:	4144 LANKERSHIM BLVD STE 210
Mailing City,St,Zip:	N HOLLYWOOD, CA 916020000
Gen County:	Los Angeles
TSD EPA ID:	CAD108040858
TSD County:	Los Angeles
Waste Category:	Photochemicals/photoprocessing waste
Disposal Method:	Not reported
Tons:	.6046
Facility County:	Los Angeles

Gepaid:	CAD982468746
Contact:	JAN GERSTEL
Telephone:	8187662599
Facility Addr2:	Not reported
Mailing Name:	Not reported
Mailing Address:	4144 LANKERSHIM BLVD STE 210
Mailing City,St,Zip:	N HOLLYWOOD, CA 916020000
Gen County:	Los Angeles
TSD EPA ID:	CAD108040858
TSD County:	Los Angeles
Waste Category:	Photochemicals/photoprocessing waste
Disposal Method:	Recycler
Tons:	2.0347
Facility County:	Los Angeles

Gepaid:	CAD982468746
Contact:	JAN GERSTEL
Telephone:	8187662599
Facility Addr2:	Not reported
Mailing Name:	Not reported
Mailing Address:	4144 LANKERSHIM BLVD STE 210
Mailing City,St,Zip:	N HOLLYWOOD, CA 916020000
Gen County:	Los Angeles
TSD EPA ID:	CAD003963592
TSD County:	Santa Clara
Waste Category:	Metal sludge - Alkaline solution (pH <UN-> 12.5) with metals (antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, copper, lead, mercury, molybdenum, nickel, selenium, silver, thallium, vanadium, and zinc)
Disposal Method:	Recycler
Tons:	1.1000
Facility County:	Los Angeles

A6
Target
Property

PACIFIC PHOTO EXPRESS LTD
100 UNIVERSAL CITY PLAZA
UNIVERSAL CITY, CA 91608

RCRA-SQG
FINDS
HAZNET

1000250249
CAD982466138

Site 6 of 21 in cluster A

Actual:
744 ft.

RCRAInfo:

Owner: JAN GERSTEL
(818) 761-2599
EPA ID: CAD982466138

Contact: MIKE JEFFERIES
(818) 763-9083

Classification: Small Quantity Generator
TSDF Activities: Not reported

Violation Status: No violations found

FINDS:

Other Pertinent Environmental Activity Identified at Site

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HAZNET:

Gepaid: CAD982466138
Contact: Not reported
Telephone: 0000000000
Facility Addr2: Not reported
Mailing Name: Not reported
Mailing Address: 100 UNIVERSAL CITY PLZ
Mailing City,St,Zip: UNIVERSAL CITY, CA 916081002
Gen County: Los Angeles
TSD EPA ID: CAD108040858
TSD County: Los Angeles
Waste Category: Photochemicals/photoprocessing waste
Disposal Method: Recycler
Tons: 3.3105
Facility County: Los Angeles

Gepaid: CAD982466138
Contact: Not reported
Telephone: 0000000000
Facility Addr2: Not reported
Mailing Name: Not reported
Mailing Address: 100 UNIVERSAL CITY PLZ
Mailing City,St,Zip: UNIVERSAL CITY, CA 916081002
Gen County: Los Angeles
TSD EPA ID: CAD108040858
TSD County: Los Angeles
Waste Category: Photochemicals/photoprocessing waste
Disposal Method: Not reported

PACIFIC PHOTO EXPRESS LTD (Continued) **1000250249**

Tons: 1.7720
Facility County: Los Angeles

Gepaid: CAD982466138
Contact: Not reported
Telephone: 0000000000
Facility Addr2: Not reported
Mailing Name: Not reported
Mailing Address: 100 UNIVERSAL CITY PLZ
Mailing City,St,Zip: UNIVERSAL CITY, CA 916081002
Gen County: Los Angeles
TSD EPA ID: CAD982524613
TSD County: Orange
Waste Category: Photochemicals/photoprocessing waste
Disposal Method: Not reported
Tons: 1.0216
Facility County: Los Angeles

A7 **MCA/UNIVERSAL** **SWEEPS UST** **S106929241**
Target Property **100 UNIVERSAL CITY PLZ 487 1** **N/A**
UNIVERSAL CITY, CA 91608

Site 7 of 21 in cluster A

Actual: 744 ft.

SWEEPS UST:
Status: A
Comp Number: 1712
Number: 1
Board Of Equalization: 44-011932
Ref Date: 09-22-93
Act Date: 04-11-94
Created Date: 02-29-88
Tank Status: A
Owner Tank Id: Not reported
Swrcb Tank Id: 19-050-001712-000001
Actv Date: 04-20-88
Capacity: 1000
Tank Use: CHEMICAL
Stg: P
Content: UNKNOWN
Number Of Tanks: 4

Status: A
Comp Number: 1712
Number: 1
Board Of Equalization: 44-011932
Ref Date: 09-22-93
Act Date: 04-11-94
Created Date: 02-29-88
Tank Status: A
Owner Tank Id: Not reported
Swrcb Tank Id: 19-050-001712-000002
Actv Date: 04-20-88
Capacity: 500
Tank Use: CHEMICAL
Stg: P
Content: UNKNOWN
Number Of Tanks: Not reported

MCA/UNIVERSAL (Continued) **S106929241**

Status: A
Comp Number: 1712
Number: 1
Board Of Equalization: 44-011932
Ref Date: 09-22-93
Act Date: 04-11-94
Created Date: 02-29-88
Tank Status: A
Owner Tank Id: Not reported
Swrcb Tank Id: 19-050-001712-000003
Actv Date: 04-20-88
Capacity: 250
Tank Use: CHEMICAL
Stg: P
Content: UNKNOWN
Number Of Tanks: Not reported

Status: A
Comp Number: 1712
Number: 1
Board Of Equalization: 44-011932
Ref Date: 09-22-93
Act Date: 04-11-94
Created Date: 02-29-88
Tank Status: A
Owner Tank Id: Not reported
Swrcb Tank Id: 19-050-001712-000004
Actv Date: 04-20-88
Capacity: 250
Tank Use: CHEMICAL
Stg: P
Content: UNKNOWN
Number Of Tanks: Not reported

A8 **UNDER WORLD PRODUCTION** **HAZNET** **S105092033**
Target **100 UNIVERSAL CITY PLAZA 4** **N/A**
Property **UNIVERSAL CITY, CA 91608**

Site 8 of 21 in cluster A

Actual:
744 ft.

HAZNET:
Gepaid: CAL000204554
Contact: UNDER WORLD PRODUCTION
Telephone: 8187771776
Facility Addr2: Not reported
Mailing Name: Not reported
Mailing Address: 100 UNIVERSAL CITY PLAZA 4
Mailing City,St,Zip: UNIVERSAL CITY, CA 916080000
Gen County: Los Angeles
TSD EPA ID: WAD991281787
TSD County: 0
Waste Category: Household waste
Disposal Method: Not reported
Tons: .3000
Facility County: Los Angeles

A9 **UNIVERSAL CITY INDUSTRIAL WASTE DISP FAC** **SWF/LF** **S102360633**
Target **100 UNIVERSAL CITY PLAZA** **N/A**
Property **UNIVERSAL CITY, CA**

Site 9 of 21 in cluster A

Actual:
744 ft.

LF:

Region:	STATE
Facility ID:	19-AA-0049
Facility Telephone:	Not reported
Facility Telephone 2:	Not reported
Lat/Long:	34.14444 / -118.36111
Land Owner:	Not reported
Owner Name:	MCA, Inc
Owner Telephone:	8187773261
Owner Address:	Not reported
Owner Address2:	100 Universal City Plaza
Owner City,St,Zip:	Universal City, CA 91608
Operator:	Not reported
Operator Phone:	Not reported
Operator Address:	Not reported
Operator Address2:	Not reported
Operator City,St,Zip:	Not reported
Operator's Status:	Closed
Permit Date:	Not reported
Permit Status:	Not reported
Permitted Acreage:	0.00
Activity:	Solid Waste Disposal Site
Regulation Status:	Permitted
Land Use:	Not reported
Landuse Name:	Recreational,Commercial
GIS Source:	Map
Category:	Disposal
Unit Number:	01
Inspection Frequency:	Quarterly
Accepted Waste:	Not reported
Year Opened:	Not reported
Year Closed:	Not reported
Closure Date:	/ /
Closure Type:	Not reported
Closure Approve:	Not reported
Disposal Acreage:	$0.00
Status:	Not reported
Swisnumber:	Not reported
Aka:	Not reported
Type Of Waste:	Not reported
Disposal Area:	Not reported
SWFP Date:	Not reported
WDR Number:	Not reported
Dates Operation:	Not reported
Dt Of Field Units:	Not reported
Surface Condition:	Not reported
Landfill Gas:	Not reported
Leachate:	Not reported
Emrgncy Response:	Not reported
Lea Date:	Not reported
Restrictions:	Not reported
Fill Area:	Not reported
Type Of Refuse:	Not reported

UNIVERSAL CITY INDUSTRIAL WASTE DISP FAC (Continued) **S102360633**

Avg Depth Of Fill:	Not reported
Addtl Expansion Area:	Not reported
Site Size:	Not reported
Site Type:	Not reported
Site Description:	Not reported
Reassess Site:	Not reported
Location:	Not reported
Parcel Num:	Not reported
Issue & Observations:	Not reported
Other Observations:	Not reported
Date:	Not reported
Address:	Not reported
Prep By:	Not reported
DOHS Number:	Not reported
CUP Number:	Not reported
CIWMB:	Not reported
Program Type:	Not reported
Public Notice:	Not reported
PERMTIER:	Not reported
Recommendations:	Not reported
Othr Recommendation:	Not reported
Sig. Change Since Last Visit:	Not reported
Priority For Site Assessment:	Not reported
Permitted Throughput with Units:	0
Actual Throughput with Units:	Not reported
Permitted Capacity with Units:	0
Remaining Capacity:	0
Remaining Capacity with Units:	Not reported
Last Waste Tire Inspection Count:	Not reported
Last Waste Tire Inspection Date:	Not reported
Original Waste Tire Count:	Not reported
Original Waste Tire Count Date:	Not reported

A10 **LIMITED DUMP** **WMUDS/SWAT** **S103441751**
Target **100 UNIVERSAL CITY PLAZA** **EMI** **N/A**
Property **UNIVERSAL CITY (MOVIECA, CA 91608**

Site 10 of 21 in cluster A

Actual: 744 ft.

WMUDS/SWAT:

Edit Date:	Not reported
Complexity:	Category B - Any facility having a physical, chemical, or biological waste treatment system (except for septic systems with subsurface disposal), or any Class II or III disposal site, or facilities without treatment systems that are complex, such as marinas with petroleum products, solid wastes, and sewage pump out facilities.
Primary Waste:	Solid Wastes
Primary Waste Type:	Nonhazardous Solid Wastes/Influent or Solid Wastes that contain nonhazardous putrescible and non putrescible solid, semisolid, and liquid wastes (E.G., garbage, trash, refuse, paper, demolition and construction wastes, manure, vegetable or animal solid and semisolid waste).
Secondary Waste:	Not reported
Secondary Waste Type:	Not reported
Base Meridian:	SB
NPID:	Not reported
Tonnage:	0
Regional Board ID:	52-069

LIMITED DUMP (Continued) **S103441751**

Municipal Solid Waste:	False
Superorder:	False
Open To Public:	False
Waste List:	False
Agency Type:	Private
Agency Name:	MCA / UNIVERSAL CITY STUDIOS
Agency Department:	Not reported
Agency Address:	100 UNIVERSAL CITY PLAZA
Agency City,St,Zip:	UNIVERSAL CITY CA 91608
Agency Contact:	DON P. TURNER
Agency Telephone:	8187772791
Land Owner Name:	MCA DEVELOPMENT CO
Land Owner Address:	100 UNIVERSAL CITY PLAZA
Land Owner City,St,Zip:	UNIVERSAL CITY, CA 91608
Land Owner Contact:	Not reported
Land Owner Phone:	2135082647
Region:	4
Facility Type:	Solid Waste Site-Class II - A solid waste facility at which designated wastes may be treated or stored.
Facility Description:	Not reported
Facility Telephone:	8187774794
SWAT Facility Name:	UNIVERSAL CITY INDUSTRIAL WASTE D.S.
Primary SIC:	7813
Secondary SIC:	Not reported
Comments:	Not reported
Last Facility Editors:	Not reported
Waste Discharge System:	True
Solid Waste Assessment Test Program:	True
Toxic Pits Cleanup Act Program:	False
Resource Conservation Recovery Act:	False
Department of Defence:	False
Solid Waste Assessment Test Program:	MCA DEVELOPMENT CO
Threat to Water Quality:	Moderate Threat to Water Quality. A violation could have a major adverse impact on receiving biota, can cause aesthetic impairment to a significant human population, or render unusable a potential domestic or municipal water supply. Awsthetic impairment would include nuisance from a waste treatment facility.
Sub Chapter 15:	True
Regional Board Project Officer:	Not reported
Number of WMUDS at Facility:	1
Section Range:	01N14W28
RCRA Facility:	No
Waste Discharge Requirements:	Inactive - Any discharger under WASTE Discharge requirements that is not currently operating/discharging, but may begin to discharge in the future. When the facility begins operating/discharging, the status must be reset to active.
Self-Monitoring Rept. Frequency:	No Reporting Requirements
Waste Discharge System ID:	4B190336001
Solid Waste Information ID:	19-AA-0049

EMI:

Year:	1990
Carbon Monoxide Emissions Tons/Yr:	19
Air Basin:	SC
Facility ID:	57867
Air District Name:	SC
SIC Code:	4953

LIMITED DUMP (Continued) **S103441751**

Air District Name:	SOUTH COAST AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	2
Reactive Organic Gases Tons/Yr:	1
Carbon Monoxide Emissions Tons/Yr:	0
NOX - Oxides of Nitrogen Tons/Yr:	0
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers & Smllr Tons/Yr:	0

A11 **MCA/UNIVERSAL** **CA FID UST** **S101582931**
Target **100 UNIVERSAL CITY PL** **N/A**
Property **UNIVERSAL CITY, CA 91608**

Site 11 of 21 in cluster A

Actual:
744 ft.

CA FID UST:

Facility ID:	19001891
Regulated By:	UTNKA
Regulated ID:	00029231
Cortese Code:	Not reported
SIC Code:	Not reported
Facility Phone:	8187771891
Mail To:	Not reported
Mailing Address:	100 UNIVERSAL PLZ
Mailing Address 2:	Not reported
Mailing City,St,Zip:	UNIVERSAL CITY 916080000
Contact:	Not reported
Contact Phone:	Not reported
DUNs Number:	Not reported
NPDES Number:	Not reported
EPA ID:	Not reported
Comments:	Not reported
Status:	Active

NPL **SAN FERNANDO VALLEY (AREA 2)** **CERCLIS** **1000710134**
Region **CRYSTAL SPRINGS WELLFIELD AREA** **FINDS** **CAD980894901**
GLENDALE, CA 91209 **NPL**

< 1/8 **ROD**
1 ft. **US ENG CONTROLS**
ENVIROSTOR
HIST Cal-Sites

CERCLIS:

Site ID:	0902252
Federal Facility:	Not a Federal Facility
NPL Status:	Currently on the Final NPL
Non NPL Status:	Not reported

CERCLIS Site Contact Name(s):

Contact Name:	David Stensby
Contact Tel:	(415) 972-3246
Contact Title:	Remedial Project Manager (RPM)
Contact Name:	Jere Johnson

SAN FERNANDO VALLEY (AREA 2) (Continued) **1000710134**

Contact Tel: (415) 972-3094
Contact Title: Site Assessment Manager (SAM)

Contact Name: Rachel Loftin
Contact Tel: (415) 972-3253
Contact Title: Remedial Project Manager (RPM)

Contact Name: Dawn Richmond
Contact Tel: (415) 972-3097
Contact Title: Site Assessment Manager (SAM)

Contact Name: Matt Mitguard
Contact Tel: (415) 972-3096
Contact Title: Site Assessment Manager (SAM)

CERCLIS Site Alias Name(s):
Alias Name: SAN FERNANDO VLY BASIN CRYSTAL SPGS AREA
Alias Address: Not reported
CA
Alias Name: GLENDALE OPERABLE UNIT
Alias Address: Not reported
CA
Alias Name: SAN FERNANDO VALLEY (AREA 2)
Alias Address: CRYSTAL SPRINGS WELLFIELD AREA
GLENDALE, CA 91209
Alias Name: SAN FERNANDO VALLEY (AREA 2)
Alias Address: CRYSTAL SPRINGS WELLFIELD AREA
LOS ANGELES/GLENDALE, CA 91209
Site Description: SAN FERNANDO #2 IS AN AREA OF CONTAM GRD WTR IN VICINITY OF CRYSTAL SPRINGS WELL FLD AREA IN L.A., CO. PART OF THE SAN FERNANDO VLY BASIN,A NATURAL UNDGRD RESERVOIR,SOURCE OF DRK WTR FOR 3 MIL.CONTAMINATED WITH TCE & PCE.

CERCLIS Assessment History:
Action: DISCOVERY
Date Started: Not reported
Date Completed: 12/01/1983
Priority Level: Not reported

Action: HAZARD RANKING SYSTEM PACKAGE
Date Started: Not reported
Date Completed: 04/01/1984
Priority Level: Not reported

Action: PRELIMINARY ASSESSMENT
Date Started: Not reported
Date Completed: 04/01/1984
Priority Level: High

Action: SITE INSPECTION
Date Started: Not reported
Date Completed: 04/01/1984
Priority Level: High

Action: PROPOSAL TO NATIONAL PRIORITIES LIST
Date Started: Not reported
Date Completed: 10/15/1984
Priority Level: Not reported

SAN FERNANDO VALLEY (AREA 2) (Continued) **1000710134**

Action: NATIONAL PRIORITIES LIST RESPONSIBLE PARTY SEARCH
Date Started: 09/30/1984
Date Completed: 08/15/1985
Priority Level: Not reported

Action: COMBINED REMEDIAL INVESTIGATION/FEASIBILITY STUDY
Date Started: 08/16/1985
Date Completed: Not reported
Priority Level: Not reported

Action: TECHNICAL ASSISTANCE
Date Started: 09/30/1985
Date Completed: Not reported
Priority Level: Not reported

Action: FINAL LISTING ON NATIONAL PRIORITIES LIST
Date Started: Not reported
Date Completed: 06/10/1986
Priority Level: Not reported

Action: REMOVAL ASSESSMENT
Date Started: 06/17/1991
Date Completed: 06/17/1991
Priority Level: Not reported

Action: Notice Letters Issued
Date Started: Not reported
Date Completed: 08/31/1992
Priority Level: Not reported

Action: Notice Letters Issued
Date Started: Not reported
Date Completed: 11/12/1992
Priority Level: Not reported

Action: Notice Letters Issued
Date Started: Not reported
Date Completed: 11/24/1992
Priority Level: Not reported

Action: ECOLOGICAL RISK ASSESSMENT
Date Started: Not reported
Date Completed: 12/15/1992
Priority Level: Not reported

Action: RISK/HEALTH ASSESSMENT
Date Started: Not reported
Date Completed: 12/15/1992
Priority Level: Not reported

Action: COMBINED REMEDIAL INVESTIGATION/FEASIBILITY STUDY
Date Started: 09/06/1989
Date Completed: 06/18/1993
Priority Level: Not reported

Action: COMBINED REMEDIAL INVESTIGATION/FEASIBILITY STUDY
Date Started: 09/06/1989

SAN FERNANDO VALLEY (AREA 2) (Continued) **1000710134**

Date Completed: 06/18/1993
Priority Level: Not reported

Action: RECORD OF DECISION
Date Started: Not reported
Date Completed: 06/18/1993
Priority Level: Not reported

Action: RECORD OF DECISION
Date Started: Not reported
Date Completed: 06/18/1993
Priority Level: Not reported

Action: NATIONAL PRIORITIES LIST RESPONSIBLE PARTY SEARCH
Date Started: 10/01/1989
Date Completed: 06/30/1993
Priority Level: Not reported

Action: REMEDIAL DESIGN/REMEDIAL ACTION NEGOTIATIONS
Date Started: 09/30/1993
Date Completed: 03/30/1994
Priority Level: Not reported

Action: ADMINISTRATIVE ORDER ON CONSENT
Date Started: Not reported
Date Completed: 03/30/1994
Priority Level: Not reported

Action: POTENTIALLY RESPONSIBLE PARTY REMEDIAL DESIGN
Date Started: 05/01/1994
Date Completed: 11/11/1996
Priority Level: Not reported

Action: POTENTIALLY RESPONSIBLE PARTY REMEDIAL DESIGN
Date Started: 05/01/1994
Date Completed: 11/11/1996
Priority Level: Not reported

Action: REMEDIAL DESIGN/REMEDIAL ACTION NEGOTIATIONS
Date Started: 10/12/1995
Date Completed: 11/26/1996
Priority Level: Not reported

Action: UNILATERAL ADMIN ORDER
Date Started: Not reported
Date Completed: 11/26/1996
Priority Level: Not reported

Action: UNILATERAL ADMIN ORDER
Date Started: Not reported
Date Completed: 09/30/1997
Priority Level: Not reported

Action: PROSPECTIVE PURCHASER AGREEMENT ASSESSMENT
Date Started: 11/30/1997
Date Completed: 12/02/1999
Priority Level: PPA Signed

SAN FERNANDO VALLEY (AREA 2) (Continued) **1000710134**

Action: Lodged By DOJ
Date Started: Not reported
Date Completed: 05/17/2000
Priority Level: Not reported

Action: ADMINISTRATIVE ORDER ON CONSENT
Date Started: Not reported
Date Completed: 06/07/2000
Priority Level: Not reported

Action: CONSENT DECREE
Date Started: 03/30/2000
Date Completed: 08/02/2000
Priority Level: Not reported

Action: SECTION 107 LITIGATION
Date Started: 03/04/1997
Date Completed: 08/02/2000
Priority Level: Not reported

Action: PREPARATION OF COST DOCUMENT PACKAGE
Date Started: 06/30/2000
Date Completed: 09/30/2000
Priority Level: Not reported

Action: PROSPECTIVE PURCHASER AGREEMENT ASSESSMENT
Date Started: 11/30/2000
Date Completed: 12/22/2000
Priority Level: PPA Signed

Action: ADMINISTRATIVE ORDER ON CONSENT
Date Started: Not reported
Date Completed: 07/23/2001
Priority Level: Not reported

Action: POTENTIALLY RESPONSIBLE PARTY LONG-TERM RESPONSE ACTION
Date Started: 09/30/2002
Date Completed: Not reported
Priority Level: Not reported

Action: POTENTIALLY RESPONSIBLE PARTY REMEDIAL ACTION
Date Started: 10/17/1997
Date Completed: 09/30/2002
Priority Level: Interim RA Report

Action: ADMINISTRATIVE ORDER ON CONSENT
Date Started: Not reported
Date Completed: 06/29/2006
Priority Level: Not reported

FINDS:
Other Pertinent Environmental Activity Identified at Site

CERCLIS (Comprehensive Environmental Response, Compensation, and Liability Information System) is the Superfund database that is used to support management in all phases of the Superfund program. The

SAN FERNANDO VALLEY (AREA 2) (Continued) **1000710134**

system contains information on all aspects of hazardous waste sites, including an inventory of sites, planned and actual site activities, and financial information.

NPL:
EPA ID: CAD980894901
EPA Region: 09
Federal: General
Final Date: 06/10/1986

Category Details:
NPL Status: Currently on the Final NPL
Category Description: Depth To Aquifer-<= 10 Feet
Category Value: 1

NPL Status: Currently on the Final NPL
Category Description: Distance To Nearest Population-> 0 And <= 1/4 Mile
Category Value: 10

Site Details:
Site Name: SAN FERNANDO VALLEY (AREA 2)
Site Status: Final
Status Date: 06/10/86
Site City: GLENDALE
Site State: CA
Federal Site: Not a Federal Facility
HRS Score: 42.24
GW Score: 73.08
SW Score: 0.00
Air Score: Not reported
Soil Score: Not reported
DC Score: Not reported
FE Score: Not reported

Substance Details:
NPL Status: Currently on the Final NPL
Substance ID: Not reported
Substance: Not reported
CAS #: Not reported
Pathway: Not reported
Scoring: Not reported

NPL Status: Currently on the Final NPL
Substance ID: U044
Substance: CHLOROFORM
CAS #: 67-66-3
Pathway: GROUND WATER PATHWAY
Scoring: 4

NPL Status: Currently on the Final NPL
Substance ID: U210
Substance: TETRACHLOROETHENE

SAN FERNANDO VALLEY (AREA 2) (Continued) **1000710134**

CAS #: 127-18-4
Pathway: GROUND WATER PATHWAY
Scoring: 2

NPL Status: Currently on the Final NPL
Substance ID: U228
Substance: TRICHLOROETHYLENE (TCE)
CAS #: 79-01-6
Pathway: GROUND WATER PATHWAY
Scoring: 2

Summary Details:

Conditions at proposal October 15, 1984): San Fernando Valley Area 2) is an area of contaminated ground water located in the vicinity of the Crystal Springs Well Field in the Cities of Los Angeles and Glendale, Los Angeles County, California. This area is part of the San Fernando Valley Basin, a natural underground reservoir that represents an important source of drinking water for at least 3 million people in the Los Angeles metropolitan area. The contaminated ground water, which underlies an area of approximately 6,680 acres, contains trichloroethylene TCE) and perchloroethylene PCE), according to tests conducted by the California Department of Health Services, as well as numerous local government agencies. The State s recommended drinking water guidelines for TCE and PCE 5 and 4 parts per billion respectively) are exceeded in a number of public wells in this area. To alleviate this contamination, wells are either taken out of service or blended withwater from clean sources to ensure that the public receives water with TCE/PCE concentrations below the State s guidelines. Status June 10, 1986):
EPA and the Los Angeles Department of Water and Power are entering into a cooperative agreement for a remedial investigation of the San Fernando Valley Basin and a feasibility study targeted at Area 1, the most contaminated area. The RI is scheduled to begin in early 1986.

Site Status Details:
NPL Status: Final
Proposed Date: 10/15/1984
Final Date: 06/10/1986
Deleted Date: Not reported

Narratives Details:
NPL Name: SAN FERNANDO VALLEY (AREA 2)
City: GLENDALE
State: CA

ROD:

Full-text of USEPA Record of Decision(s) is available from EDR.

US ENG CONTROLS:
EPA ID: CAD980894901
Site ID: 0902252
Name: SAN FERNANDO VALLEY (AREA 2)
Address: CRYSTAL SPRINGS WELLFIELD AREA
GLENDALE, CA 91209
EPA Region: 09
County: LOS ANGELES
Event Code: Not reported

SAN FERNANDO VALLEY (AREA 2) (Continued) **1000710134**

Actual Date: Not reported

Action ID: 002
Action Name: PRP RA
Action Completion date: 9/30/2002
Planned Complet. date: 9/30/2002
Operable Unit: 03
Contaminated Media : Groundwater
Engineering Control: Air Stripping

Action ID: 002
Action Name: PRP RA
Action Completion date: 9/30/2002
Planned Complet. date: 9/30/2002
Operable Unit: 03
Contaminated Media : Groundwater
Engineering Control: Discharge

Action ID: 002
Action Name: PRP RA
Action Completion date: 9/30/2002
Planned Complet. date: 9/30/2002
Operable Unit: 03
Contaminated Media : Groundwater
Engineering Control: Extraction

Action ID: 002
Action Name: PRP RA
Action Completion date: 9/30/2002
Planned Complet. date: 9/30/2002
Operable Unit: 03
Contaminated Media : Groundwater
Engineering Control: Filtration

Action ID: 002
Action Name: PRP RA
Action Completion date: 9/30/2002
Planned Complet. date: 9/30/2002
Operable Unit: 03
Contaminated Media : Groundwater
Engineering Control: Liquid Phase Carbon Adsorption

Action ID: 002
Action Name: PRP RA
Action Completion date: 9/30/2002
Planned Complet. date: 9/30/2002
Operable Unit: 03
Contaminated Media : Groundwater
Engineering Control: Treatment, (N.O.S.)

Action ID: 001
Action Name: PRP RD
Action Completion date: 11/11/1996
Planned Complet. date: 12/31/1996
Operable Unit: 02
Contaminated Media : Groundwater
Engineering Control: Air Stripping

SAN FERNANDO VALLEY (AREA 2) (Continued) **1000710134**

Action ID: 001
Action Name: PRP RD
Action Completion date: 11/11/1996
Planned Complet. date: 12/31/1996
Operable Unit: 02
Contaminated Media : Groundwater
Engineering Control: Hydraulic Control

Action ID: 001
Action Name: PRP RD
Action Completion date: 11/11/1996
Planned Complet. date: 12/31/1996
Operable Unit: 02
Contaminated Media : Groundwater
Engineering Control: Liquid Phase Carbon Adsorption

Action ID: 001
Action Name: PRP RD
Action Completion date: 11/11/1996
Planned Complet. date: 12/31/1996
Operable Unit: 02
Contaminated Media : Groundwater
Engineering Control: Monitoring

Action ID: 001
Action Name: PRP RD
Action Completion date: 11/11/1996
Planned Complet. date: 12/31/1996
Operable Unit: 02
Contaminated Media : Groundwater
Engineering Control: Pump And Treat

Action ID: 002
Action Name: RECORD OF DECISION
Action Completion date: 6/18/1993
Planned Complet. date: 6/30/1993
Operable Unit: 03
Contaminated Media : Groundwater
Engineering Control: Air Stripping

Action ID: 002
Action Name: RECORD OF DECISION
Action Completion date: 6/18/1993
Planned Complet. date: 6/30/1993
Operable Unit: 03
Contaminated Media : Groundwater
Engineering Control: Discharge

Action ID: 002
Action Name: RECORD OF DECISION
Action Completion date: 6/18/1993
Planned Complet. date: 6/30/1993
Operable Unit: 03
Contaminated Media : Groundwater
Engineering Control: Extraction

Action ID: 002

SAN FERNANDO VALLEY (AREA 2) (Continued) **1000710134**

Action Name: RECORD OF DECISION
Action Completion date: 6/18/1993
Planned Complet. date: 6/30/1993
Operable Unit: 03
Contaminated Media : Groundwater
Engineering Control: Filtration

Action ID: 002
Action Name: RECORD OF DECISION
Action Completion date: 6/18/1993
Planned Complet. date: 6/30/1993
Operable Unit: 03
Contaminated Media : Groundwater
Engineering Control: Liquid Phase Carbon Adsorption

Action ID: 002
Action Name: RECORD OF DECISION
Action Completion date: 6/18/1993
Planned Complet. date: 6/30/1993
Operable Unit: 03
Contaminated Media : Groundwater
Engineering Control: Treatment, (N.O.S.)

Action ID: 003
Action Name: RECORD OF DECISION
Action Completion date: 6/18/1993
Planned Complet. date: 6/30/1993
Operable Unit: 02
Contaminated Media : Groundwater
Engineering Control: Air Stripping

Action ID: 003
Action Name: RECORD OF DECISION
Action Completion date: 6/18/1993
Planned Complet. date: 6/30/1993
Operable Unit: 02
Contaminated Media : Groundwater
Engineering Control: Carbon Adsorption

Action ID: 003
Action Name: RECORD OF DECISION
Action Completion date: 6/18/1993
Planned Complet. date: 6/30/1993
Operable Unit: 02
Contaminated Media : Groundwater
Engineering Control: Discharge

Action ID: 003
Action Name: RECORD OF DECISION
Action Completion date: 6/18/1993
Planned Complet. date: 6/30/1993
Operable Unit: 02
Contaminated Media : Groundwater
Engineering Control: Extraction

Action ID: 003
Action Name: RECORD OF DECISION

SAN FERNANDO VALLEY (AREA 2) (Continued) **1000710134**

Action Completion date: 6/18/1993
Planned Complet. date: 6/30/1993
Operable Unit: 02
Contaminated Media : Groundwater
Engineering Control: Filtration

Action ID: 003
Action Name: RECORD OF DECISION
Action Completion date: 6/18/1993
Planned Complet. date: 6/30/1993
Operable Unit: 02
Contaminated Media : Groundwater
Engineering Control: Liquid Phase Carbon Adsorption

ENVIROSTOR:
Site Type: Federal Superfund
Site Type Detailed: State Response or NPL
Acres: 7229
NPL: YES
Regulatory Agencies: SMBRP, RWQCB 4 - Los Angeles, US EPA
Lead Agency: US EPA
Program Manager: TEDD YARGEAU
Supervisor: Rita Kamat
Division Branch: So Cal - Glendale
Facility ID: 19990012
Site Code: 300127
Assembly: 43
Senate: 21
Special Program: EPA - Multi-Site Cooperative Agreement
Status: **Active**
Status Date: 1984-01-01 00:00:00
Restricted Use: NO
Funding: Joint State/Federal-Funded
Latitude: 34.1575
Longitude: -118.284722222222
Alias Name: 300127
P31032
SAN FERNANDO VALLEY GW BASIN AREA 2
CRYSTAL SPRINGS AREA; GLENDALE OU
19990012
Alias Type: PCode
Alternate Name
Alternate Name
Project Code (Site Code)
Envirostor ID Number
APN: NONE SPECIFIED
APN Description: Not reported
Comments: An Administrative Order on Consent is signed by U.S. EPA and PRPs to conduct the Remedial Design of the groundwater extraction, treatment, disinfection, blending, and distribution facilities necessary to implement the Glendale North and South RODs.City of Glendale assumes operation of the Glendale Water Treatment Plant.
Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Remedial Action Plan
Completed Date: / /

SAN FERNANDO VALLEY (AREA 2) (Continued) **1000710134**

Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Remedial Action Plan
Completed Date:	/ /
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Remedial Investigation / Feasibility Study
Completed Date:	/ /
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Remedial Investigation / Feasibility Study
Completed Date:	/ /
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Remedial Investigation / Feasibility Study
Completed Date:	/ /
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Public Participation Plan / Community Relations Plan
Completed Date:	/ /
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Remedial: Operating Properly & Successfully
Completed Date:	/ /
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Remedial Design
Completed Date:	/ /
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Consent Order
Completed Date:	/ /
Confirmed:	30022,30026,30027,30152,30153
Confirmed Description:	Tetrachloroethylene (PCE)
Confirmed Description:	1,1,1-Trichloroethane (TCA)
Confirmed Description:	Trichloroethylene (TCE)
Confirmed Description:	Chromium III
Confirmed Description:	Chromium VI
Future Area Name:	PROJECT WIDE
Future Sub Area Name:	Not reported
Future Document Type:	Long Term Monitoring Report
Future Due Date:	2021
Media Affected:	30022, 30026, 30027, 30152, 30153
Media Affected Desc:	Not reported
Media Affected Desc:	Not reported
Media Affected Desc:	Not reported
Media Affected Desc:	Not reported
Media Affected Desc:	Not reported
Management Required:	NONE SPECIFIED
Management Required Desc:	Not reported
Potential:	AQUI, SOIL
Potenital Description:	Not reported
Potenital Description:	Not reported
Schedule Area Name:	Not reported
Schedule Sub Area Name:	Not reported
Schedule Document Type:	Not reported
Schedule Due Date:	Not reported

SAN FERNANDO VALLEY (AREA 2) (Continued) **1000710134**

Schedule Revised Date: Not reported
PastUse: AEROSPACE MANUFACTURING/MAINTENANCE, MANUFACTURING - INDUSTRIAL MACHINERY, METAL FINISHING, METAL PLATING - CHROME, METAL PLATING - OTHER, RESEARCH - AEROSPACE

HISTORICAL CAL-SITES:
Facility ID: 19990012
Region: 3
Region Name: GLENDALE
Branch: SA
Branch Name: SO CAL - GLENDALE
File Name: Not reported
State Senate District: 01011984
Status: AWP - ANNUAL WORKPLAN (AWP) - ACTIVE SITE
Status Name: ANNUAL WORKPLAN - ACTIVE SITE
Lead Agency: EPA
Lead Agency: ENVIRONMENTAL PROTECTION AGENCY
Facility Type: NPJF
Type Name: NPL SITE, JOINT STATE/FEDERAL-FUNDED
NPL: Listed
SIC Code: 99
SIC Name: NONCLASSIFIABLE ESTABLISHMENTS
Access: Not reported
Cortese: Not reported
Hazardous Ranking Score: Not reported
Date Site Hazard Ranked: Not reported
Groundwater Contamination: Confirmed
Staff Member Responsible for Site: TYARGEAU
Supervisor Responsible for Site: Not reported
Region Water Control Board: LA
Region Water Control Board Name: LOS ANGELES
Lat/Long Direction: Not reported
Lat/Long (dms): 0 0 0 / 0 0 0
Lat/long Method: Not reported
Lat/Long Description: Not reported
State Assembly District Code: 43
State Senate District Code: 21

Click this hyperlink while viewing on your computer to access additional CA_CALSITE: detail in the EDR Site Report.

A12 **UNIVERSAL STUDIOS, INC** **UST** **U004049286**
3900 LANKERSHIM BLVD **N/A**
< 1/8 **UNIVERSAL CITY, CA 91608**
1 ft.

Site 12 of 21 in cluster A

Relative: Higher

Actual: 744 ft.

UST:
Region: STATE
Local Agency: Los Angeles, Los Angeles County
Facility ID: 24128

Region: STATE
Local Agency: 19000
Facility ID: 211

A13
< 1/8
1 ft.

Relative:
Higher

Actual:
744 ft.

UNIVERSAL STUDIOS, LLC
3900 LANKERSHIM BLVD
UNIVERSAL CITY, CA 91608

HAZNET
RCRA-LQG
HIST UST

1000431652
CAT080014145

Site 13 of 21 in cluster A

HAZNET:

Gepaid:	CAT080014145
Contact:	UNIVERSAL STUDIOS INC
Telephone:	8187771000
Facility Addr2:	Not reported
Mailing Name:	Not reported
Mailing Address:	100 UNIVERSAL CITY PLAZA BLDG 1280/LL
Mailing City,St,Zip:	UNIVERSAL CITY, CA 916081002
Gen County:	Los Angeles
TSD EPA ID:	CAD008364432
TSD County:	Los Angeles
Waste Category:	Unspecified solvent mixture Waste
Disposal Method:	Recycler
Tons:	.4170
Facility County:	Los Angeles

Gepaid:	CAT080014145
Contact:	UNIVERSAL STUDIOS INC
Telephone:	8187771000
Facility Addr2:	Not reported
Mailing Name:	Not reported
Mailing Address:	100 UNIVERSAL CITY PLAZA BLDG 1280/LL
Mailing City,St,Zip:	UNIVERSAL CITY, CA 916081002
Gen County:	Los Angeles
TSD EPA ID:	CAD008364432
TSD County:	Los Angeles
Waste Category:	Oxygenated solvents (acetone, butanol, ethyl acetate, etc.)
Disposal Method:	Recycler
Tons:	3.1275
Facility County:	Los Angeles

Gepaid:	CAT080014145
Contact:	UNIVERSAL STUDIOS INC
Telephone:	8187771000
Facility Addr2:	Not reported
Mailing Name:	Not reported
Mailing Address:	100 UNIVERSAL CITY PLAZA BLDG 1280/LL
Mailing City,St,Zip:	UNIVERSAL CITY, CA 916081002
Gen County:	Los Angeles
TSD EPA ID:	CAD097030993
TSD County:	Los Angeles
Waste Category:	Not reported
Disposal Method:	Treatment, Tank
Tons:	.0000
Facility County:	Los Angeles

Gepaid:	CAT080014145
Contact:	UNIVERSAL STUDIOS INC
Telephone:	8187771000
Facility Addr2:	Not reported
Mailing Name:	Not reported
Mailing Address:	100 UNIVERSAL CITY PLAZA BLDG 1280/LL
Mailing City,St,Zip:	UNIVERSAL CITY, CA 916081002

UNIVERSAL STUDIOS, LLC (Continued) **1000431652**

Gen County: Los Angeles
TSD EPA ID: CAD097030993
TSD County: Los Angeles
Waste Category: Not reported
Disposal Method: Not reported
Tons: .0000
Facility County: Los Angeles

Gepaid: CAT080014145
Contact: UNIVERSAL STUDIOS INC
Telephone: 8187771000
Facility Addr2: Not reported
Mailing Name: Not reported
Mailing Address: 100 UNIVERSAL CITY PLAZA BLDG 1280/LL
Mailing City,St,Zip: UNIVERSAL CITY, CA 916081002
Gen County: Los Angeles
TSD EPA ID: CAD097030993
TSD County: Los Angeles
Waste Category: Liquids with pH <UN-> 2
Disposal Method: Treatment, Tank
Tons: .8548
Facility County: Los Angeles

Click this hyperlink while viewing on your computer to access
343 additional CA_HAZNET: record(s) in the EDR Site Report.

RCRAInfo:
Owner: MCA INC UNIVERSAL
(818) 777-1626
EPA ID: CAT080014145

Contact: Not reported

Classification: Large Quantity Generator
TSDF Activities: Not reported

BIENNIAL REPORTS:
Last Biennial Reporting Year: 2005

Waste	Quantity (Lbs)	Waste	Quantity (Lbs)
D001	34865.00	D002	34959.00
D003	52.00	D007	1048.00
D008	1048.00	D018	34345.00
F002	34345.00	F003	34345.00
F005	34345.00		

Violation Status: No violations found

HIST UST:
Region: STATE
Facility ID: 00000029231
Tank Num: 006
Container Num: 6
Year Installed: Not reported
Tank Capacity: 00000500
Facility Type: Other
Other Type: Not reported
Total Tanks: 0017
Tank Used for: PRODUCT

UNIVERSAL STUDIOS, LLC (Continued) **1000431652**

Type of Fuel: Not reported
Tank Construction: Not reported
Leak Detection: None
Contact Name: Not reported
Telephone: 8189854321
Owner Name: MCA INC.
Owner Address: 100 UNIVERSAL PLAZA
Owner City,St,Zip: UNIVERSAL CITY, CA 91608

Region: STATE
Facility ID: 00000029231
Tank Num: 007
Container Num: 7
Year Installed: 1963
Tank Capacity: 00001575
Facility Type: Other
Other Type: Not reported
Total Tanks: 0017
Tank Used for: PRODUCT
Type of Fuel: Not reported
Tank Construction: Not reported
Leak Detection: Visual, Stock Inventor
Contact Name: Not reported
Telephone: 8189854321
Owner Name: MCA INC.
Owner Address: 100 UNIVERSAL PLAZA
Owner City,St,Zip: UNIVERSAL CITY, CA 91608

Region: STATE
Facility ID: 00000029231
Tank Num: 008
Container Num: 8
Year Installed: 1982
Tank Capacity: 00006000
Facility Type: Other
Other Type: Not reported
Total Tanks: 0017
Tank Used for: PRODUCT
Type of Fuel: UNLEADED
Tank Construction: Not reported
Leak Detection: Visual, Stock Inventor
Contact Name: Not reported
Telephone: 8189854321
Owner Name: MCA INC.
Owner Address: 100 UNIVERSAL PLAZA
Owner City,St,Zip: UNIVERSAL CITY, CA 91608

Region: STATE
Facility ID: 00000029231
Tank Num: 009
Container Num: 9
Year Installed: Not reported
Tank Capacity: 00012000
Facility Type: Other
Other Type: Not reported
Total Tanks: 0017
Tank Used for: PRODUCT

UNIVERSAL STUDIOS, LLC (Continued) **1000431652**

Type of Fuel: UNLEADED
Tank Construction: Not reported
Leak Detection: Visual, Stock Inventor
Contact Name: Not reported
Telephone: 8189854321
Owner Name: MCA INC.
Owner Address: 100 UNIVERSAL PLAZA
Owner City,St,Zip: UNIVERSAL CITY, CA 91608

Region: STATE
Facility ID: 00000029231
Tank Num: 010
Container Num: 10
Year Installed: 1982
Tank Capacity: 00006000
Facility Type: Other
Other Type: Not reported
Total Tanks: 0017
Tank Used for: PRODUCT
Type of Fuel: REGULAR
Tank Construction: Not reported
Leak Detection: Visual, Stock Inventor
Contact Name: Not reported
Telephone: 8189854321
Owner Name: MCA INC.
Owner Address: 100 UNIVERSAL PLAZA
Owner City,St,Zip: UNIVERSAL CITY, CA 91608

Region: STATE
Facility ID: 00000029231
Tank Num: 011
Container Num: 11
Year Installed: 1982
Tank Capacity: 00000500
Facility Type: Other
Other Type: Not reported
Total Tanks: 0017
Tank Used for: WASTE
Type of Fuel: WASTE OIL
Tank Construction: Not reported
Leak Detection: Visual, Stock Inventor
Contact Name: Not reported
Telephone: 8189854321
Owner Name: MCA INC.
Owner Address: 100 UNIVERSAL PLAZA
Owner City,St,Zip: UNIVERSAL CITY, CA 91608

Region: STATE
Facility ID: 00000029231
Tank Num: 012
Container Num: 12
Year Installed: Not reported
Tank Capacity: 00000000
Facility Type: Other
Other Type: Not reported
Total Tanks: 0017
Tank Used for: WASTE

UNIVERSAL STUDIOS, LLC (Continued) **1000431652**

Type of Fuel: Not reported
Tank Construction: Not reported
Leak Detection: Visual
Contact Name: Not reported
Telephone: 8189854321
Owner Name: MCA INC.
Owner Address: 100 UNIVERSAL PLAZA
Owner City,St,Zip: UNIVERSAL CITY, CA 91608

Region: STATE
Facility ID: 00000029231
Tank Num: 013
Container Num: 13
Year Installed: Not reported
Tank Capacity: 00000000
Facility Type: Other
Other Type: Not reported
Total Tanks: 0017
Tank Used for: WASTE
Type of Fuel: Not reported
Tank Construction: Not reported
Leak Detection: Visual
Contact Name: Not reported
Telephone: 8189854321
Owner Name: MCA INC.
Owner Address: 100 UNIVERSAL PLAZA
Owner City,St,Zip: UNIVERSAL CITY, CA 91608

Region: STATE
Facility ID: 00000029231
Tank Num: 014
Container Num: 14
Year Installed: Not reported
Tank Capacity: 00000000
Facility Type: Other
Other Type: Not reported
Total Tanks: 0017
Tank Used for: WASTE
Type of Fuel: Not reported
Tank Construction: Not reported
Leak Detection: Visual
Contact Name: Not reported
Telephone: 8189854321
Owner Name: MCA INC.
Owner Address: 100 UNIVERSAL PLAZA
Owner City,St,Zip: UNIVERSAL CITY, CA 91608

Region: STATE
Facility ID: 00000029231
Tank Num: 015
Container Num: 17
Year Installed: Not reported
Tank Capacity: 00000125
Facility Type: Other
Other Type: Not reported
Total Tanks: 0017
Tank Used for: WASTE

UNIVERSAL STUDIOS, LLC (Continued) **1000431652**

Type of Fuel: Not reported
Tank Construction: Not reported
Leak Detection: Visual
Contact Name: Not reported
Telephone: 8189854321
Owner Name: MCA INC.
Owner Address: 100 UNIVERSAL PLAZA
Owner City,St,Zip: UNIVERSAL CITY, CA 91608

Region: STATE
Facility ID: 00000029231
Tank Num: 016
Container Num: 15
Year Installed: 1963
Tank Capacity: 00005000
Facility Type: Other
Other Type: Not reported
Total Tanks: 0017
Tank Used for: PRODUCT
Type of Fuel: WASTE OIL
Tank Construction: Not reported
Leak Detection: Visual, Stock Inventor
Contact Name: Not reported
Telephone: 8189854321
Owner Name: MCA INC.
Owner Address: 100 UNIVERSAL PLAZA
Owner City,St,Zip: UNIVERSAL CITY, CA 91608

Region: STATE
Facility ID: 00000029231
Tank Num: 017
Container Num: 16
Year Installed: Not reported
Tank Capacity: 00000000
Facility Type: Other
Other Type: Not reported
Total Tanks: 0017
Tank Used for: WASTE
Type of Fuel: WASTE OIL
Tank Construction: Not reported
Leak Detection: Visual
Contact Name: Not reported
Telephone: 8189854321
Owner Name: MCA INC.
Owner Address: 100 UNIVERSAL PLAZA
Owner City,St,Zip: UNIVERSAL CITY, CA 91608

Region: STATE
Facility ID: 00000029231
Tank Num: 001
Container Num: 1
Year Installed: Not reported
Tank Capacity: 00001000
Facility Type: Other
Other Type: Not reported
Total Tanks: 0017
Tank Used for: PRODUCT

UNIVERSAL STUDIOS, LLC (Continued) **1000431652**

Type of Fuel: Not reported
Tank Construction: Not reported
Leak Detection: Visual
Contact Name: Not reported
Telephone: 8189854321
Owner Name: MCA INC.
Owner Address: 100 UNIVERSAL PLAZA
Owner City,St,Zip: UNIVERSAL CITY, CA 91608

Region: STATE
Facility ID: 00000029231
Tank Num: 002
Container Num: 2
Year Installed: Not reported
Tank Capacity: 00000500
Facility Type: Other
Other Type: Not reported
Total Tanks: 0017
Tank Used for: PRODUCT
Type of Fuel: Not reported
Tank Construction: Not reported
Leak Detection: Visual, Stock Inventor
Contact Name: Not reported
Telephone: 8189854321
Owner Name: MCA INC.
Owner Address: 100 UNIVERSAL PLAZA
Owner City,St,Zip: UNIVERSAL CITY, CA 91608

Region: STATE
Facility ID: 00000029231
Tank Num: 003
Container Num: 3
Year Installed: Not reported
Tank Capacity: 00000250
Facility Type: Other
Other Type: Not reported
Total Tanks: 0017
Tank Used for: PRODUCT
Type of Fuel: Not reported
Tank Construction: Not reported
Leak Detection: None
Contact Name: Not reported
Telephone: 8189854321
Owner Name: MCA INC.
Owner Address: 100 UNIVERSAL PLAZA
Owner City,St,Zip: UNIVERSAL CITY, CA 91608

Region: STATE
Facility ID: 00000029231
Tank Num: 004
Container Num: 4
Year Installed: Not reported
Tank Capacity: 00000250
Facility Type: Other
Other Type: Not reported
Total Tanks: 0017
Tank Used for: PRODUCT

UNIVERSAL STUDIOS, LLC (Continued) **1000431652**

Type of Fuel:	Not reported
Tank Construction:	Not reported
Leak Detection:	None
Contact Name:	Not reported
Telephone:	8189854321
Owner Name:	MCA INC.
Owner Address:	100 UNIVERSAL PLAZA
Owner City,St,Zip:	UNIVERSAL CITY, CA 91608
Region:	STATE
Facility ID:	00000029231
Tank Num:	005
Container Num:	5
Year Installed:	Not reported
Tank Capacity:	00000500
Facility Type:	Other
Other Type:	Not reported
Total Tanks:	0017
Tank Used for:	PRODUCT
Type of Fuel:	Not reported
Tank Construction:	Not reported
Leak Detection:	None
Contact Name:	Not reported
Telephone:	8189854321
Owner Name:	MCA INC.
Owner Address:	100 UNIVERSAL PLAZA
Owner City,St,Zip:	UNIVERSAL CITY, CA 91608

A14 **CHMIRS** **S105886730**

3900 LANKERSHEIM BLVD **N/A**

< 1/8 **UNIVERSAL CITY, CA 91608**

1 ft.

Site 14 of 21 in cluster A

Relative: Higher

CHMIRS:

Actual: 744 ft.

OES Incident Number:	02-5626
OES notification:	10/17/200201:41:30 PM
OES Date:	Not reported
OES Time:	Not reported
Incident Date:	Not reported
Date Completed:	**Not reported**
Property Use:	Not reported
Agency Id Number:	Not reported
Agency Incident Number:	Not reported
Time Notified:	Not reported
Time Completed:	Not reported
Surrounding Area:	Not reported
Estimated Temperature:	Not reported
Property Management:	Not reported
Special Studies 1:	Not reported
Special Studies 2:	Not reported
Special Studies 3:	Not reported
Special Studies 4:	Not reported
Special Studies 5:	Not reported
Special Studies 6:	Not reported
More Than Two Substances Involved?:	Not reported
Resp Agncy Personel # Of Decontaminated:	Not reported
Responding Agency Personel # Of Injuries:	Not reported

(Continued) **S105886730**

Responding Agency Personel # Of Fatalities:	Not reported
Others Number Of Decontaminated:	Not reported
Others Number Of Injuries:	Not reported
Others Number Of Fatalities:	Not reported
Vehicle Make/year:	Not reported
Vehicle License Number:	Not reported
Vehicle State:	Not reported
Vehicle Id Number:	Not reported
CA/DOT/PUC/ICC Number:	Not reported
Company Name:	Not reported
Reporting Officer Name/ID:	Not reported
Report Date:	Not reported
Comments:	Not reported
Facility Telephone:	Not reported
Waterway Involved:	Yes
Waterway:	Los Angeles River
Spill Site:	Not reported
Cleanup By:	Reporting Party
Containment:	Not reported
What Happened:	Not reported
Type:	Not reported
Measure:	Not reported
Other:	Not reported
Date/Time:	Not reported
Year:	2002
Agency:	Universal Studios
Incident Date:	10/17/200212:00:00 AM
Admin Agency:	L. A. County Fire Prevention
Amount:	Not reported
Contained:	Yes
Site Type:	Other
E Date:	Not reported
Substance:	drinking water
Quantity Released:	Not reported
BBLS:	0
Cups:	0
CUFT:	0
Gallons:	2000
Grams:	0
Pounds:	0
Liters:	0
Ounces:	0
Pints:	0
Quarts:	0
Sheen:	0
Tons:	0
Unknown:	0
Description:	Not reported
Evacuations:	0
Number of Injuries:	0
Number of Fatalities:	0
Description:	Water line broke causing fresh water to flow into a dirt hole. Booms and filters were used to filter the sandy dirt from the water, however, some dirt and water washed into the storm drain that empties into the LA River

A15
< 1/8
1 ft.

Relative:
Higher

Actual:
744 ft.

UNIVERSAL STUDIOS-STAGE #27
3900 LANKERSHIM BLVD
UNIVERSAL CITY, CA 91608

Site 15 of 21 in cluster A

LUST **S105051409**
N/A

LUST:

Region:	STATE	
Case Type:	Other ground water affected	
Cross Street:	UNIVERSAL CITY BLVD	
Enf Type:	Not reported	
Funding:	Not reported	
How Discovered:	Not reported	
How Stopped:	Not reported	
Leak Cause:	UNK	
Leak Source:	UNK	
Global Id:	T0603702619	
Stop Date:	Not reported	
Confirm Leak:	Not reported	
Workplan:	Not reported	
Prelim Assess:	Not reported	
Pollution Char:	Not reported	
Remed Plan:	Not reported	
Remed Action:	1988-04-25 00:00:00	
Monitoring:	Not reported	
Close Date:	1996-07-30 00:00:00	
Discover Date:	Not reported	
Enforcement Dt:	Not reported	
Release Date:	1984-10-02 00:00:00	
Review Date:	1996-09-23 00:00:00	
Enter Date:	1986-12-31 00:00:00	
MTBE Date:	Not reported	
GW Qualifier:	Not reported	
Soil Qualifier:	Not reported	
Max MTBE GW ppb:	Not reported	
Max MTBE Soil ppb:	Not reported	
County:	19	
Org Name:	Not reported	
Reg Board:	Los Angeles Region	
Status:	Case Closed	
Chemical:	Gasoline	
Contact Person:	Not reported	
Responsible Party:	MCA-UNIVERSAL STUDIOS	
RP Address:	3900 LANKERSHIM BLVD, UNIVERSAL CITY CA 91608	D
Interim:	Yes	
Oversight Prgm:	LUST	
MTBE Class:	*	
MTBE Conc:	0	
MTBE Fuel:	1	
MTBE Tested:	Site NOT Tested for MTBE.Includes Unknown and Not Analyzed.	
Staff:	YR	
Staff Initials:	PEJ	
Lead Agency:	Regional Board	
Local Agency:	19050	
Hydr Basin #:	SAN FERNANDO VALLEY	
Beneficial:	Not reported	
Priority:	Not reported	
Cleanup Fund Id:	Not reported	
Work Suspended:	Not reported	

UNIVERSAL STUDIOS-STAGE #27 (Continued) **S105051409**

Local Case #: Not reported
Case Number: 916080025
Qty Leaked: Not reported
Abate Method: Excavate and Dispose - remove contaminated soil and dispose in approved site, Pump and Treat Ground Water - generally employed to remove dissolved contaminants
Operator: Not reported
Water System Name: Not reported
Well Name: Not reported
Distance To Lust: 0
Waste Discharge Global ID: Not reported
Waste Disch Assigned Name: Not reported
Summary: *PHASE 1 PLAN NEEDS REVISIONS. PHASE 2 LDP IN PROGRESS. DAB AUTHORIZED MAINTENANCE IN UGT UNIT

LUST:
Region: 4
Staff: UNK
County: Los Angeles
Local Agency: 19050
Lead Agency: Regional Board
Case Type: Groundwater
Status: Case Closed
Substance: Gasoline
Cross Street: UNIVERSAL CITY BLVD
Global ID: T0603702619
Enforcement Type: Not reported
Date Leak Discovered: Not reported
Date Leak Record Entered: 12/31/1986
How Leak Discovered: Not reported
How Leak Stopped: Not reported
Cause of Leak: UNK
Leak Source: UNK
Date Leak Stopped: Not reported
Date Confirmation Began: Not reported
Operator: Not reported
Water System: Not reported
Well Name: Not reported
Approx. Dist To Production Well (ft): 6992.558529079025195217745 7406
Abatement Method Used at the Site: EDGT
Source of Cleanup Funding: EDGT
Date Leak First Reported: 10/2/1984
Preliminary Site Assessment Workplan Submitted: Not reported
Preliminary Site Assessment Began: Not reported
Pollution Characterization Began: Not reported
Remediation Plan Submitted: Not reported
Remedial Action Underway: 4/25/1988
Post Remedial Action Monitoring Began: Not reported
Date the Case was Closed: 7/30/1996
Date Case Last Changed on Database: 9/23/1996
Enforcement Action Date: Not reported
Historical Max MTBE Date: Not reported
Hist Max MTBE Conc in Groundwater: Not reported
Hist Max MTBE Conc in Soil: Not reported
Significant Interim Remedial Action Taken: Yes
GW Qualifier: Not reported
Soil Qualifier: Not reported

UNIVERSAL STUDIOS-STAGE #27 (Continued) **S105051409**

Organization:	Not reported
Regional Board:	04
Owner Contact:	Not reported
Responsible Party:	MCA-UNIVERSAL STUDIOS
RP Address:	3900 LANKERSHIM BLVD, UNIVERSAL CITY CA 91608
Program:	LUST
Lat/Long:	34.1398952 / -1
Local Agency Staff:	PEJ
Beneficial Use:	Not reported
Priority:	Not reported
Cleanup Fund Id:	Not reported
Suspended:	Not reported
Local Case No:	Not reported
Substance Quantity:	Not reported
Assigned Name:	Not reported
W Global ID:	Not reported
Summary:	*PHASE 1 PLAN NEEDS REVISIONS. PHASE 2 LDP IN PROGRESS. DAB AUTHORIZED MAINTENANCE IN UGT UNIT

A16 **UNIVERSAL STUDIOS-STAGE #** **Cortese** **S103993361**
3900 LANKERSHIM **N/A**
< 1/8 **STUDIO CITY, CA 91608**
1 ft.

Site 16 of 21 in cluster A

Relative: Higher

Cortese:

Region:	CORTESE
Facility Addr2:	Not reported

Actual: 744 ft.

Region:	CORTESE
Facility Addr2:	Not reported

A17 **UNIVERSAL STUDIOS** **SWEEPS UST** **S106933437**
TRAM GARAGE 3900 LANKERSHIM BLVD **N/A**
< 1/8 **UNIVERSAL CITY, CA 91608**
1 ft.

Site 17 of 21 in cluster A

Relative: Higher

SWEEPS UST:

Status:	A
Comp Number:	211
Number:	1
Board Of Equalization:	44-007409
Ref Date:	02-04-92
Act Date:	02-04-92
Created Date:	06-30-89
Tank Status:	A
Owner Tank Id:	Not reported
Swrcb Tank Id:	19-000-000211-000002
Actv Date:	06-30-89
Capacity:	Not reported
Tank Use:	UNKNOWN
Stg:	W
Content:	Not reported
Number Of Tanks:	19

Actual: 744 ft.

UNIVERSAL STUDIOS (Continued) **S106933437**

Status:	A
Comp Number:	211
Number:	1
Board Of Equalization:	44-007409
Ref Date:	02-04-92
Act Date:	02-04-92
Created Date:	06-30-89
Tank Status:	A
Owner Tank Id:	Not reported
Swrcb Tank Id:	19-000-000211-000003
Actv Date:	06-30-89
Capacity:	Not reported
Tank Use:	UNKNOWN
Stg:	W
Content:	Not reported
Number Of Tanks:	Not reported

Status:	A
Comp Number:	211
Number:	1
Board Of Equalization:	44-007409
Ref Date:	02-04-92
Act Date:	02-04-92
Created Date:	06-30-89
Tank Status:	A
Owner Tank Id:	Not reported
Swrcb Tank Id:	19-000-000211-000004
Actv Date:	06-30-89
Capacity:	Not reported
Tank Use:	UNKNOWN
Stg:	W
Content:	Not reported
Number Of Tanks:	Not reported

Status:	A
Comp Number:	211
Number:	1
Board Of Equalization:	44-007409
Ref Date:	02-04-92
Act Date:	02-04-92
Created Date:	06-30-89
Tank Status:	A
Owner Tank Id:	Not reported
Swrcb Tank Id:	19-000-000211-000005
Actv Date:	06-30-89
Capacity:	Not reported
Tank Use:	UNKNOWN
Stg:	W
Content:	Not reported
Number Of Tanks:	Not reported

Status:	A
Comp Number:	211
Number:	1
Board Of Equalization:	44-007409
Ref Date:	02-04-92
Act Date:	02-04-92

UNIVERSAL STUDIOS (Continued) **S106933437**

Created Date: 06-30-89
Tank Status: A
Owner Tank Id: Not reported
Swrcb Tank Id: 19-000-000211-000006
Actv Date: 06-30-89
Capacity: Not reported
Tank Use: UNKNOWN
Stg: W
Content: Not reported
Number Of Tanks: Not reported

Status: A
Comp Number: 211
Number: 1
Board Of Equalization: 44-007409
Ref Date: 02-04-92
Act Date: 02-04-92
Created Date: 06-30-89
Tank Status: A
Owner Tank Id: 7
Swrcb Tank Id: 19-000-000211-000007
Actv Date: 02-04-92
Capacity: 500
Tank Use: OIL
Stg: W
Content: Not reported
Number Of Tanks: Not reported

Status: A
Comp Number: 211
Number: 1
Board Of Equalization: 44-007409
Ref Date: 02-04-92
Act Date: 02-04-92
Created Date: 06-30-89
Tank Status: A
Owner Tank Id: Not reported
Swrcb Tank Id: 19-000-000211-000008
Actv Date: 06-30-89
Capacity: Not reported
Tank Use: UNKNOWN
Stg: W
Content: Not reported
Number Of Tanks: Not reported

Status: A
Comp Number: 211
Number: 1
Board Of Equalization: 44-007409
Ref Date: 02-04-92
Act Date: 02-04-92
Created Date: 06-30-89
Tank Status: A
Owner Tank Id: Not reported
Swrcb Tank Id: 19-000-000211-000009
Actv Date: 06-30-89
Capacity: Not reported

UNIVERSAL STUDIOS (Continued) **S106933437**

Tank Use: UNKNOWN
Stg: W
Content: Not reported
Number Of Tanks: Not reported

Status: A
Comp Number: 211
Number: 1
Board Of Equalization: 44-007409
Ref Date: 02-04-92
Act Date: 02-04-92
Created Date: 06-30-89
Tank Status: A
Owner Tank Id: Not reported
Swrcb Tank Id: 19-000-000211-000010
Actv Date: 06-30-89
Capacity: Not reported
Tank Use: UNKNOWN
Stg: W
Content: Not reported
Number Of Tanks: Not reported

Status: A
Comp Number: 211
Number: 1
Board Of Equalization: 44-007409
Ref Date: 02-04-92
Act Date: 02-04-92
Created Date: 06-30-89
Tank Status: A
Owner Tank Id: Not reported
Swrcb Tank Id: 19-000-000211-000011
Actv Date: 06-30-89
Capacity: Not reported
Tank Use: UNKNOWN
Stg: W
Content: Not reported
Number Of Tanks: Not reported

Status: A
Comp Number: 211
Number: 1
Board Of Equalization: 44-007409
Ref Date: 02-04-92
Act Date: 02-04-92
Created Date: 06-30-89
Tank Status: A
Owner Tank Id: Not reported
Swrcb Tank Id: 19-000-000211-000012
Actv Date: 06-30-89
Capacity: Not reported
Tank Use: UNKNOWN
Stg: W
Content: Not reported
Number Of Tanks: Not reported

Status: A

UNIVERSAL STUDIOS (Continued) **S106933437**

Comp Number: 211
Number: 1
Board Of Equalization: 44-007409
Ref Date: 02-04-92
Act Date: 02-04-92
Created Date: 06-30-89
Tank Status: A
Owner Tank Id: Not reported
Swrcb Tank Id: 19-000-000211-000013
Actv Date: 06-30-89
Capacity: Not reported
Tank Use: UNKNOWN
Stg: W
Content: Not reported
Number Of Tanks: Not reported

Status: A
Comp Number: 211
Number: 1
Board Of Equalization: 44-007409
Ref Date: 02-04-92
Act Date: 02-04-92
Created Date: 06-30-89
Tank Status: A
Owner Tank Id: Not reported
Swrcb Tank Id: 19-000-000211-000014
Actv Date: 06-30-89
Capacity: Not reported
Tank Use: UNKNOWN
Stg: W
Content: Not reported
Number Of Tanks: Not reported

Status: A
Comp Number: 211
Number: 1
Board Of Equalization: 44-007409
Ref Date: 02-04-92
Act Date: 02-04-92
Created Date: 06-30-89
Tank Status: A
Owner Tank Id: Not reported
Swrcb Tank Id: 19-000-000211-000015
Actv Date: 06-30-89
Capacity: Not reported
Tank Use: UNKNOWN
Stg: W
Content: Not reported
Number Of Tanks: Not reported

Status: A
Comp Number: 211
Number: 1
Board Of Equalization: 44-007409
Ref Date: 02-04-92
Act Date: 02-04-92
Created Date: 06-30-89

UNIVERSAL STUDIOS (Continued) **S106933437**

Tank Status:	A
Owner Tank Id:	Not reported
Swrcb Tank Id:	19-000-000211-000016
Actv Date:	06-30-89
Capacity:	Not reported
Tank Use:	UNKNOWN
Stg:	W
Content:	Not reported
Number Of Tanks:	Not reported

Status:	A
Comp Number:	211
Number:	1
Board Of Equalization:	44-007409
Ref Date:	02-04-92
Act Date:	02-04-92
Created Date:	06-30-89
Tank Status:	A
Owner Tank Id:	Not reported
Swrcb Tank Id:	19-000-000211-000017
Actv Date:	06-30-89
Capacity:	Not reported
Tank Use:	UNKNOWN
Stg:	W
Content:	Not reported
Number Of Tanks:	Not reported

Status:	A
Comp Number:	211
Number:	1
Board Of Equalization:	44-007409
Ref Date:	02-04-92
Act Date:	02-04-92
Created Date:	06-30-89
Tank Status:	A
Owner Tank Id:	Not reported
Swrcb Tank Id:	19-000-000211-000018
Actv Date:	06-30-89
Capacity:	Not reported
Tank Use:	UNKNOWN
Stg:	W
Content:	Not reported
Number Of Tanks:	Not reported

Status:	A
Comp Number:	211
Number:	1
Board Of Equalization:	44-007409
Ref Date:	02-04-92
Act Date:	02-04-92
Created Date:	06-30-89
Tank Status:	A
Owner Tank Id:	Not reported
Swrcb Tank Id:	19-000-000211-000019
Actv Date:	06-30-89
Capacity:	Not reported
Tank Use:	UNKNOWN

UNIVERSAL STUDIOS (Continued) **S106933437**

Stg:	W
Content:	Not reported
Number Of Tanks:	Not reported
Status:	A
Comp Number:	211
Number:	1
Board Of Equalization:	44-007409
Ref Date:	02-04-92
Act Date:	02-04-92
Created Date:	06-30-89
Tank Status:	A
Owner Tank Id:	Not reported
Swrcb Tank Id:	19-000-000211-000020
Actv Date:	06-30-89
Capacity:	Not reported
Tank Use:	UNKNOWN
Stg:	W
Content:	Not reported
Number Of Tanks:	Not reported

A18 **UNIVERSAL STUDIOS (TRAM BLDG)** **LUST** **S103282140**
3900 LANKERSHIM BLVD N **N/A**
< 1/8 **UNIVERSAL CITY, CA 91608**
1 ft.

Site 18 of 21 in cluster A

Relative: Higher

Actual: 744 ft.

LUST:

Region:	STATE
Case Type:	Other ground water affected
Cross Street:	UNIVERSAL CITY BLVD
Enf Type:	Not reported
Funding:	Not reported
How Discovered:	Tank Closure
How Stopped:	Not reported
Leak Cause:	Corrosion
Leak Source:	Not reported
Global Id:	T0603704517
Stop Date:	Not reported
Confirm Leak:	Not reported
Workplan:	Not reported
Prelim Assess:	Not reported
Pollution Char:	2000-11-03 00:00:00
Remed Plan:	Not reported
Remed Action:	Not reported
Monitoring:	Not reported
Close Date:	Not reported
Discover Date:	1996-12-05 00:00:00
Enforcement Dt:	Not reported
Release Date:	1996-12-06 00:00:00
Review Date:	2000-11-03 00:00:00
Enter Date:	1998-06-11 00:00:00
MTBE Date:	Not reported
GW Qualifier:	Not reported
Soil Qualifier:	Not reported
Max MTBE GW ppb:	Not reported
Max MTBE Soil ppb:	Not reported
County:	19

UNIVERSAL STUDIOS (TRAM BLDG) (Continued) **S103282140**

Org Name: Not reported
Reg Board: Los Angeles Region
Status: Pollution Characterization
Chemical: Gasoline
Contact Person: Not reported
Responsible Party: DON TURNER
RP Address: 100 UNIVERSAL CITY
Interim: Yes
Oversight Prgm: LUST
MTBE Class: *
MTBE Conc: 0
MTBE Fuel: 1
MTBE Tested: Site NOT Tested for MTBE.Includes Unknown and Not Analyzed.
Staff: JW
Staff Initials: JA
Lead Agency: Regional Board
Local Agency: 19000
Hydr Basin #: SAN FERNANDO VALLEY
Beneficial: Not reported
Priority: Not reported
Cleanup Fund Id: Not reported
Work Suspended: Not reported
Local Case #: Not reported
Case Number: R-00211
Qty Leaked: Not reported
Abate Method: Excavate and Dispose - remove contaminated soil and dispose in approved site, G, T, Vapor Extraction
Operator: Not reported
Water System Name: Not reported
Well Name: Not reported
Distance To Lust: 0
Waste Discharge Global ID: Not reported
Waste Disch Assigned Name: Not reported
Summary: 4 ADDITIONAL TANKS REMOVED FROM THE SITE FROM 12-6-96 TO 6-17-97.; 11/3/00 UST INFORMATION REQUEST

LUST:
Region: 4
Staff: JW
County: Los Angeles
Local Agency: 19000
Lead Agency: Regional Board
Case Type: Groundwater
Status: Pollution Characterization
Substance: Gasoline
Cross Street: UNIVERSAL CITY BLVD
Global ID: T0603704517
Enforcement Type: Not reported
Date Leak Discovered: 12/5/1996
Date Leak Record Entered: 6/11/1998
How Leak Discovered: Tank Closure
How Leak Stopped: Not reported
Cause of Leak: Corrosion
Leak Source: Not reported
Date Leak Stopped: Not reported
Date Confirmation Began: Not reported
Operator: Not reported

UNIVERSAL STUDIOS (TRAM BLDG) (Continued) **S103282140**

Water System:	Not reported	
Well Name:	Not reported	
Approx. Dist To Production Well (ft):		7214.315363118167925000 6034813
Abatement Method Used at the Site:		ED GT VE
Source of Cleanup Funding:		ED GT VE
Date Leak First Reported:		12/6/1996
Preliminary Site Assessment Workplan Submitted:		Not reported
Preliminary Site Assessment Began:		Not reported
Pollution Characterization Began:		11/3/2000
Remediation Plan Submitted:		Not reported
Remedial Action Underway:		Not reported
Post Remedial Action Monitoring Began:		Not reported
Date the Case was Closed:		Not reported
Date Case Last Changed on Database:		11/3/2000
Enforcement Action Date:		Not reported
Historical Max MTBE Date:		Not reported
Hist Max MTBE Conc in Groundwater:		Not reported
Hist Max MTBE Conc in Soil:		Not reported
Significant Interim Remedial Action Taken:		Yes
GW Qualifier:	Not reported	
Soil Qualifier:	Not reported	
Organization:	Not reported	
Regional Board:	04	
Owner Contact:	Not reported	
Responsible Party:	DON TURNER	
RP Address:	100 UNIVERSAL CITY	
Program:	LUST	
Lat/Long:	34.1393002 / -1	
Local Agency Staff:	Not reported	
Beneficial Use:	Not reported	
Priority:	Not reported	
Cleanup Fund Id:	Not reported	
Suspended:	Not reported	
Local Case No:	Not reported	
Substance Quantity:	Not reported	
Assigned Name:	Not reported	
W Global ID:	Not reported	
Summary:	4 ADDITIONAL TANKS REMOVED FROM THE SITE FROM 12-6-96 TO 11/3/00 UST INFORMATION REQUEST	6-17-97.;

A19 **UNIVERSAL STUDIOS** **ERNS 8720528**
UNIVERSAL STUDIOS **N/A**
< 1/8 **UNIVERSAL CITY, CA**
1 ft.

Site 19 of 21 in cluster A

Relative:
Higher

Actual:
744 ft.

Click this hyperlink while viewing on your computer to access additional ERNS detail in the EDR Site Report.

A20
< 1/8
1 ft.

Relative:
Higher

Actual:
744 ft.

UNIVERSAL STUDIOS/TRAM GARAGE
3900 LANKERSHIM BLVD
UNIVERSAL CITY, CA 91608

CA FID UST
EMI
SWEEPS UST

S101582677
N/A

Site 20 of 21 in cluster A

CA FID UST:

Facility ID:	19001033
Regulated By:	UTNKA
Regulated ID:	CAD080014
Cortese Code:	Not reported
SIC Code:	Not reported
Facility Phone:	8187773841
Mail To:	Not reported
Mailing Address:	100 UNIVERSAL
Mailing Address 2:	Not reported
Mailing City,St,Zip:	UNIVERSAL CITY 91608
Contact:	Not reported
Contact Phone:	Not reported
DUNs Number:	Not reported
NPDES Number:	Not reported
EPA ID:	Not reported
Comments:	Not reported
Status:	Active

EMI:

Year:	1987
Carbon Monoxide Emissions Tons/Yr:	19
Air Basin:	SC
Facility ID:	16862
Air District Name:	SC
SIC Code:	7812
Air District Name:	SOUTH COAST AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	151
Reactive Organic Gases Tons/Yr:	121
Carbon Monoxide Emissions Tons/Yr:	1385
NOX - Oxides of Nitrogen Tons/Yr:	51
SOX - Oxides of Sulphur Tons/Yr:	3
Particulate Matter Tons/Yr:	3
Part. Matter 10 Micrometers & Smllr Tons/Yr:	3

Year:	1990
Carbon Monoxide Emissions Tons/Yr:	19
Air Basin:	SC
Facility ID:	800202
Air District Name:	SC
SIC Code:	7999
Air District Name:	SOUTH COAST AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	79
Reactive Organic Gases Tons/Yr:	61
Carbon Monoxide Emissions Tons/Yr:	519
NOX - Oxides of Nitrogen Tons/Yr:	23
SOX - Oxides of Sulphur Tons/Yr:	1
Particulate Matter Tons/Yr:	2
Part. Matter 10 Micrometers & Smllr Tons/Yr:	1

UNIVERSAL STUDIOS/TRAM GARAGE (Continued) **S101582677**

Year:	1996
Carbon Monoxide Emissions Tons/Yr:	19
Air Basin:	SC
Facility ID:	800202
Air District Name:	SC
SIC Code:	7812
Air District Name:	SOUTH COAST AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	47
Reactive Organic Gases Tons/Yr:	32
Carbon Monoxide Emissions Tons/Yr:	17
NOX - Oxides of Nitrogen Tons/Yr:	9
SOX - Oxides of Sulphur Tons/Yr:	1
Particulate Matter Tons/Yr:	1
Part. Matter 10 Micrometers & Smllr Tons/Yr:	1

Year:	1997
Carbon Monoxide Emissions Tons/Yr:	19
Air Basin:	SC
Facility ID:	800202
Air District Name:	SC
SIC Code:	7812
Air District Name:	SOUTH COAST AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	41
Reactive Organic Gases Tons/Yr:	34
Carbon Monoxide Emissions Tons/Yr:	12
NOX - Oxides of Nitrogen Tons/Yr:	15
SOX - Oxides of Sulphur Tons/Yr:	2
Particulate Matter Tons/Yr:	2
Part. Matter 10 Micrometers & Smllr Tons/Yr:	2

Year:	1998
Carbon Monoxide Emissions Tons/Yr:	19
Air Basin:	SC
Facility ID:	800202
Air District Name:	SC
SIC Code:	7812
Air District Name:	SOUTH COAST AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	38
Reactive Organic Gases Tons/Yr:	32
Carbon Monoxide Emissions Tons/Yr:	12
NOX - Oxides of Nitrogen Tons/Yr:	15
SOX - Oxides of Sulphur Tons/Yr:	2
Particulate Matter Tons/Yr:	2
Part. Matter 10 Micrometers & Smllr Tons/Yr:	2

Year:	1999
Carbon Monoxide Emissions Tons/Yr:	19
Air Basin:	SC
Facility ID:	800202
Air District Name:	SC
SIC Code:	7812

UNIVERSAL STUDIOS/TRAM GARAGE (Continued) **S101582677**

Air District Name:	SOUTH COAST AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	41
Reactive Organic Gases Tons/Yr:	34
Carbon Monoxide Emissions Tons/Yr:	12
NOX - Oxides of Nitrogen Tons/Yr:	15
SOX - Oxides of Sulphur Tons/Yr:	2
Particulate Matter Tons/Yr:	2
Part. Matter 10 Micrometers & Smllr Tons/Yr:	2

Year:	2000
Carbon Monoxide Emissions Tons/Yr:	19
Air Basin:	SC
Facility ID:	800202
Air District Name:	SC
SIC Code:	7812
Air District Name:	SOUTH COAST AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	41
Reactive Organic Gases Tons/Yr:	34
Carbon Monoxide Emissions Tons/Yr:	12
NOX - Oxides of Nitrogen Tons/Yr:	15
SOX - Oxides of Sulphur Tons/Yr:	2
Particulate Matter Tons/Yr:	2
Part. Matter 10 Micrometers & Smllr Tons/Yr:	2

Year:	2001
Carbon Monoxide Emissions Tons/Yr:	19
Air Basin:	SC
Facility ID:	800202
Air District Name:	SC
SIC Code:	7812
Air District Name:	SOUTH COAST AQMD
Community Health Air Pollution Info System:	Y
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	10
Reactive Organic Gases Tons/Yr:	8
Carbon Monoxide Emissions Tons/Yr:	16
NOX - Oxides of Nitrogen Tons/Yr:	22
SOX - Oxides of Sulphur Tons/Yr:	2
Particulate Matter Tons/Yr:	2
Part. Matter 10 Micrometers & Smllr Tons/Yr:	2

Year:	2002
Carbon Monoxide Emissions Tons/Yr:	19
Air Basin:	SC
Facility ID:	800202
Air District Name:	SC
SIC Code:	7812
Air District Name:	SOUTH COAST AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	6
Reactive Organic Gases Tons/Yr:	4
Carbon Monoxide Emissions Tons/Yr:	13

UNIVERSAL STUDIOS/TRAM GARAGE (Continued) **S101582677**

NOX - Oxides of Nitrogen Tons/Yr:	6
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	1
Part. Matter 10 Micrometers & Smllr Tons/Yr:	1

Year:	2003
Carbon Monoxide Emissions Tons/Yr:	19
Air Basin:	SC
Facility ID:	800202
Air District Name:	SC
SIC Code:	7812
Air District Name:	SOUTH COAST AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	6
Reactive Organic Gases Tons/Yr:	4
Carbon Monoxide Emissions Tons/Yr:	13
NOX - Oxides of Nitrogen Tons/Yr:	6
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	1
Part. Matter 10 Micrometers & Smllr Tons/Yr:	1

Year:	2004
Carbon Monoxide Emissions Tons/Yr:	19
Air Basin:	SC
Facility ID:	800202
Air District Name:	SC
SIC Code:	7812
Air District Name:	SOUTH COAST AQMD
Community Health Air Pollution Info System:	Y
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	5.83256
Reactive Organic Gases Tons/Yr:	3.41
Carbon Monoxide Emissions Tons/Yr:	13.45545
NOX - Oxides of Nitrogen Tons/Yr:	5.8739
SOX - Oxides of Sulphur Tons/Yr:	0.36256
Particulate Matter Tons/Yr:	0.8700709
Part. Matter 10 Micrometers & Smllr Tons/Yr:	0.8

Year:	2005
Carbon Monoxide Emissions Tons/Yr:	19
Air Basin:	SC
Facility ID:	800202
Air District Name:	SC
SIC Code:	7812
Air District Name:	SOUTH COAST AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	2.53231
Reactive Organic Gases Tons/Yr:	1.836747183
Carbon Monoxide Emissions Tons/Yr:	6.91539
NOX - Oxides of Nitrogen Tons/Yr:	5.23211
SOX - Oxides of Sulphur Tons/Yr:	.34136
Particulate Matter Tons/Yr:	.7205950585
Part. Matter 10 Micrometers & Smllr Tons/Yr:	.71688436916

UNIVERSAL STUDIOS/TRAM GARAGE (Continued) **S101582677**

SWEEPS UST:

Status:	Not reported
Comp Number:	211
Number:	Not reported
Board Of Equalization:	44-007409
Ref Date:	Not reported
Act Date:	Not reported
Created Date:	Not reported
Tank Status:	Not reported
Owner Tank Id:	Not reported
Swrcb Tank Id:	19-000-000211-000001
Actv Date:	Not reported
Capacity:	550
Tank Use:	OIL
Stg:	PRODUCT
Content:	Not reported
Number Of Tanks:	1

A21 **UNIVERSAL STUDIOS 3900 LANKERSHIN ST** **ERNS** **93320524**
UNIVERSAL STUDIOS 3900 LANKERSHIN ST **N/A**
< 1/8 **UNIVERSAL CITY, CA**
1 ft.

Site 21 of 21 in cluster A

Relative: Higher

Click this hyperlink while viewing on your computer to access additional ERNS detail in the EDR Site Report.

Actual: 744 ft.

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22 **CAPTAIN COCONUTS** **HAZNET** **S100857666**
SSW **1000 UNIVERSAL CENTER** **N/A**
1/8-1/4 **UNIVERSAL CITY, CA 91608**
938 ft.

Relative: Higher

Actual: 763 ft.

HAZNET:

Gepaid:	CAL000082974
Contact:	BOB MORRIS
Telephone:	8186228697
Facility Addr2:	Not reported
Mailing Name:	Not reported
Mailing Address:	1000 UNIVERSAL CENTER
Mailing City,St,Zip:	UNIVERSAL CITY, CA 916080000
Gen County:	Los Angeles
TSD EPA ID:	CAD000088252
TSD County:	Los Angeles
Waste Category:	Other inorganic solid waste
Disposal Method:	Transfer Station
Tons:	.1250
Facility County:	Los Angeles

Gepaid:	CAL000082974
Contact:	BOB MORRIS
Telephone:	8186228697
Facility Addr2:	Not reported
Mailing Name:	Not reported
Mailing Address:	1000 UNIVERSAL CENTER
Mailing City,St,Zip:	UNIVERSAL CITY, CA 916080000
Gen County:	Los Angeles

CAPTAIN COCONUTS (Continued) **S100857666**

TSD EPA ID: CAD000082252
TSD County: 0
Waste Category: Other inorganic solid waste
Disposal Method: Transfer Station
Tons: .1250
Facility County: Los Angeles

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23 **OUT TAKES INC** **HAZNET** **S103619859**
South **1000 UNIVERSAL CENTER DR STE 188** **N/A**
1/8-1/4 **UNIVERSAL CITY, CA 91608**
1190 ft.

Relative:
Higher

Actual:
793 ft.

HAZNET:
Gepaid: CAL931245856
Contact: OUT TAKES INC
Telephone: 8187521261
Facility Addr2: Not reported
Mailing Name: Not reported
Mailing Address: 1000 UNIVERSAL CENTER DR STE 188
Mailing City,St,Zip: UNIVERSAL CITY, CA 916081019
Gen County: Los Angeles
TSD EPA ID: CAD981402522
TSD County: Kern
Waste Category: Not reported
Disposal Method: Recycler
Tons: .0000
Facility County: Los Angeles

Gepaid: CAL931245856
Contact: OUT TAKES INC
Telephone: 8187521261
Facility Addr2: Not reported
Mailing Name: Not reported
Mailing Address: 1000 UNIVERSAL CENTER DR STE 188
Mailing City,St,Zip: UNIVERSAL CITY, CA 916081019
Gen County: Los Angeles
TSD EPA ID: CAD981402522
TSD County: Kern
Waste Category: Metal sludge - Alkaline solution (pH <UN-> 12.5) with metals (antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, copper, lead, mercury, molybdenum, nickel, selenium, silver, thallium, vanadium, and zinc)
Disposal Method: Not reported
Tons: .0450
Facility County: Los Angeles

Gepaid: CAL931245856
Contact: OUT TAKES INC
Telephone: 8187521261
Facility Addr2: Not reported
Mailing Name: Not reported
Mailing Address: 1000 UNIVERSAL CENTER DR STE 188
Mailing City,St,Zip: UNIVERSAL CITY, CA 916081019
Gen County: Los Angeles
TSD EPA ID: CAD981402522
TSD County: Kern
Waste Category: Metal sludge - Alkaline solution (pH <UN-> 12.5) with metals (antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt,

OUT TAKES INC (Continued) **S103619859**

copper, lead, mercury, molybdenum, nickel, selenium, silver, thallium, vanadium, and zinc)
Disposal Method: Recycler
Tons: .1400
Facility County: Los Angeles

Gepaid: CAL931245856
Contact: OUT TAKES INC
Telephone: 8187521261
Facility Addr2: Not reported
Mailing Name: Not reported
Mailing Address: 1000 UNIVERSAL CENTER DR STE 188
Mailing City,St,Zip: UNIVERSAL CITY, CA 916081019
Gen County: Los Angeles
TSD EPA ID: CAD108040858
TSD County: Los Angeles
Waste Category: Photochemicals/photoprocessing waste
Disposal Method: Not reported
Tons: .1459
Facility County: Los Angeles

Gepaid: CAL931245856
Contact: OUT TAKES INC
Telephone: 8187521261
Facility Addr2: Not reported
Mailing Name: Not reported
Mailing Address: 1000 UNIVERSAL CENTER DR STE 188
Mailing City,St,Zip: UNIVERSAL CITY, CA 916081019
Gen County: Los Angeles
TSD EPA ID: CAD108040858
TSD County: Los Angeles
Waste Category: Photochemicals/photoprocessing waste
Disposal Method: Recycler
Tons: 1.3842
Facility County: Los Angeles

Click this hyperlink while viewing on your computer to access
9 additional CA_HAZNET: record(s) in the EDR Site Report.

B24 **UNIVERSAL CITY HILTON & TOWERS** **HAZNET** **S103664858**
WSW **555 UNIVERSAL TERRACE PKWY** **N/A**
1/8-1/4 **UNIVERSAL CITY, CA 91608**
1216 ft.

Site 1 of 2 in cluster B

Relative: Higher

Actual: 791 ft.

HAZNET:
Gepaid: CAD983583824
Contact: TUNTEX PROPERTIES
Telephone: 4155551212
Facility Addr2: Not reported
Mailing Name: Not reported
Mailing Address: 555 UNIVERSAL TERRACE PKWY
Mailing City,St,Zip: UNIVERSAL CITY, CA 916081001
Gen County: Los Angeles
TSD EPA ID: CAD982411993
TSD County: 1
Waste Category: Other inorganic solid waste
Disposal Method: Transfer Station

UNIVERSAL CITY HILTON & TOWERS (Continued) **S103664858**

Tons: .5000
Facility County: Los Angeles

Gepaid: CAD983583824
Contact: TUNTEX PROPERTIES
Telephone: 4155551212
Facility Addr2: Not reported
Mailing Name: Not reported
Mailing Address: 555 UNIVERSAL TERRACE PKWY
Mailing City,St,Zip: UNIVERSAL CITY, CA 916081001
Gen County: Los Angeles
TSD EPA ID: CAD099452708
TSD County: Los Angeles
Waste Category: Tank bottom waste
Disposal Method: Not reported
Tons: .0000
Facility County: Los Angeles

Gepaid: CAD983583824
Contact: TUNTEX PROPERTIES
Telephone: 4155551212
Facility Addr2: Not reported
Mailing Name: Not reported
Mailing Address: 555 UNIVERSAL TERRACE PKWY
Mailing City,St,Zip: UNIVERSAL CITY, CA 916081001
Gen County: Los Angeles
TSD EPA ID: CAD099452708
TSD County: Los Angeles
Waste Category: Tank bottom waste
Disposal Method: Recycler
Tons: .3127
Facility County: Los Angeles

Gepaid: CAD983583824
Contact: TUNTEX PROPERTIES
Telephone: 4155551212
Facility Addr2: Not reported
Mailing Name: Not reported
Mailing Address: 555 UNIVERSAL TERRACE PKWY
Mailing City,St,Zip: UNIVERSAL CITY, CA 916081001
Gen County: Los Angeles
TSD EPA ID: CAT080013352
TSD County: Los Angeles
Waste Category: Tank bottom waste
Disposal Method: Recycler
Tons: .2085
Facility County: Los Angeles

Gepaid: CAD983583824
Contact: TUNTEX PROPERTIES
Telephone: 4155551212
Facility Addr2: Not reported
Mailing Name: Not reported
Mailing Address: 555 UNIVERSAL TERRACE PKWY
Mailing City,St,Zip: UNIVERSAL CITY, CA 916081001
Gen County: Los Angeles
TSD EPA ID: CAT080013352

UNIVERSAL CITY HILTON & TOWERS (Continued) **S103664858**

TSD County: Los Angeles
Waste Category: Waste oil and mixed oil
Disposal Method: Recycler
Tons: .7506
Facility County: Los Angeles

Click this hyperlink while viewing on your computer to access
11 additional CA_HAZNET: record(s) in the EDR Site Report.

B25
WSW
1/8-1/4
1216 ft.

Relative: Higher

Actual: 791 ft.

UNIVERSAL CITY HILTON TOWERS **RCRA-SQG 1000594548**
555 UNIVERSITY TERRACE PKWY **FINDS CAD983583824**
UNIVERSAL CITY, CA 91608

Site 2 of 2 in cluster B

RCRAInfo:
Owner: HILTON HOTELS
(415) 555-1212
EPA ID: CAD983583824

Contact: MITCH MILLER
(818) 506-2500

Classification: Small Quantity Generator
TSDF Activities: Not reported

Violation Status: No violations found

FINDS:
Other Pertinent Environmental Activity Identified at Site

The NEI (National Emissions Inventory) database contains information on stationary and mobile sources that emit criteria air pollutants and their precursors, as well as hazardous air pollutants (HAPs).

RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

26
NW
1/4-1/2
2313 ft.

Relative: Lower

Actual: 560 ft.

WOLFGANG PUCK'S CAFE **LOS ANGELES CO. HMS S105939950**
10 UNIVERSAL CITY PLAZA **EMI N/A**
MALIBU-UNINCORPORATED, CA 91608

LOS ANGELES CO. HMS:
Region: LA
Facility Id: 028078-039542
Facility Status: OPEN
Area: 59
Permit Number: Not reported

WOLFGANG PUCK'S CAFE (Continued) **S105939950**

Permit Status: Not reported
Facility Type: Not reported

EMI:

Year:	1990
Carbon Monoxide Emissions Tons/Yr:	19
Air Basin:	SC
Facility ID:	74469
Air District Name:	SC
SIC Code:	0
Air District Name:	SOUTH COAST AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	0
Reactive Organic Gases Tons/Yr:	0
Carbon Monoxide Emissions Tons/Yr:	0
NOX - Oxides of Nitrogen Tons/Yr:	1
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers & Smllr Tons/Yr:	0

Year:	1995
Carbon Monoxide Emissions Tons/Yr:	19
Air Basin:	SC
Facility ID:	74469
Air District Name:	SC
SIC Code:	9999
Air District Name:	SOUTH COAST AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	0
Reactive Organic Gases Tons/Yr:	0
Carbon Monoxide Emissions Tons/Yr:	0
NOX - Oxides of Nitrogen Tons/Yr:	0
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers & Smllr Tons/Yr:	0

Year:	1996
Carbon Monoxide Emissions Tons/Yr:	19
Air Basin:	SC
Facility ID:	74469
Air District Name:	SC
SIC Code:	9999
Air District Name:	SOUTH COAST AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	0
Reactive Organic Gases Tons/Yr:	0
Carbon Monoxide Emissions Tons/Yr:	0
NOX - Oxides of Nitrogen Tons/Yr:	0
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers & Smllr Tons/Yr:	0

Year:	1997
Carbon Monoxide Emissions Tons/Yr:	19

WOLFGANG PUCK'S CAFE (Continued) **S105939950**

Air Basin:	SC
Facility ID:	74469
Air District Name:	SC
SIC Code:	9999
Air District Name:	SOUTH COAST AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	0
Reactive Organic Gases Tons/Yr:	0
Carbon Monoxide Emissions Tons/Yr:	0
NOX - Oxides of Nitrogen Tons/Yr:	0
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers & Smllr Tons/Yr:	0

Year:	1998
Carbon Monoxide Emissions Tons/Yr:	19
Air Basin:	SC
Facility ID:	74469
Air District Name:	SC
SIC Code:	9999
Air District Name:	SOUTH COAST AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	0
Reactive Organic Gases Tons/Yr:	0
Carbon Monoxide Emissions Tons/Yr:	0
NOX - Oxides of Nitrogen Tons/Yr:	0
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers & Smllr Tons/Yr:	0

Year:	1999
Carbon Monoxide Emissions Tons/Yr:	19
Air Basin:	SC
Facility ID:	74469
Air District Name:	SC
SIC Code:	9999
Air District Name:	SOUTH COAST AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	0
Reactive Organic Gases Tons/Yr:	0
Carbon Monoxide Emissions Tons/Yr:	0
NOX - Oxides of Nitrogen Tons/Yr:	0
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers & Smllr Tons/Yr:	0

Year:	2000
Carbon Monoxide Emissions Tons/Yr:	19
Air Basin:	SC
Facility ID:	74469
Air District Name:	SC
SIC Code:	9999
Air District Name:	SOUTH COAST AQMD
Community Health Air Pollution Info System:	Not reported

WOLFGANG PUCK'S CAFE (Continued) **S105939950**

Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	0
Reactive Organic Gases Tons/Yr:	0
Carbon Monoxide Emissions Tons/Yr:	0
NOX - Oxides of Nitrogen Tons/Yr:	0
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers & Smllr Tons/Yr:	0

Year:	2001
Carbon Monoxide Emissions Tons/Yr:	19
Air Basin:	SC
Facility ID:	74469
Air District Name:	SC
SIC Code:	9999
Air District Name:	SOUTH COAST AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	0
Reactive Organic Gases Tons/Yr:	0
Carbon Monoxide Emissions Tons/Yr:	0
NOX - Oxides of Nitrogen Tons/Yr:	0
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers & Smllr Tons/Yr:	0

27
West
1/4-1/2
2333 ft.

BANK OF AMERICA **HAZNET** **S103951801**
110 UNIVERSAL CITY PLAZA **N/A**
UNIVERSAL CITY, CA 91608

Relative:
Lower

Actual:
680 ft.

HAZNET:

Gepaid:	CAC001256888
Contact:	B OF A
Telephone:	0000000000
Facility Addr2:	Not reported
Mailing Name:	Not reported
Mailing Address:	C/O COMPASS
Mailing City,St,Zip:	SAN FRANCISCO, CA 941050000
Gen County:	Los Angeles
TSD EPA ID:	NVT330010000
TSD County:	99
Waste Category:	Polychlorinated biphenyls and material containing PCB's
Disposal Method:	Not reported
Tons:	.3603
Facility County:	Los Angeles

C28
SSW
1/4-1/2
2368 ft.

Relative:
Lower

Actual:
640 ft.

UNIVERSAL CAHUENGA MEDICAL GRO
3500 CAHUENGA BLVD W
LOS ANGELES, CA 90068

Site 1 of 2 in cluster C

HAZNET:

Gepaid:	CAL000066697
Contact:	CARABET NORMAN AND STEINBERG
Telephone:	0000000000
Facility Addr2:	Not reported
Mailing Name:	Not reported
Mailing Address:	3500 CAHUENGA BLVD W
Mailing City,St,Zip:	LOS ANGELES, CA 900680000
Gen County:	Los Angeles
TSD EPA ID:	UTD069803658
TSD County:	99
Waste Category:	Metal sludge - Alkaline solution (pH <UN-> 12.5) with metals (antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, copper, lead, mercury, molybdenum, nickel, selenium, silver, thallium, vanadium, and zinc)
Disposal Method:	Not reported
Tons:	.0240
Facility County:	Los Angeles

HAZNET

S100947319
N/A

C29
SW
1/4-1/2
2397 ft.

Relative:
Lower

Actual:
635 ft.

UNIVERSAL CITY NISSAN
3518 CAHUENGA
UNIVERSAL CITY, CA 90068

Site 2 of 2 in cluster C

HAZNET:

Gepaid:	CAC002567839
Contact:	BOB CHARLES
Telephone:	3104530041
Facility Addr2:	Not reported
Mailing Name:	BOB CHARLES
Mailing Address:	3518 CAHUENGA
Mailing City,St,Zip:	UNIVERSAL CITY, CA 90068
Gen County:	Los Angeles
TSD EPA ID:	CAD009007626
TSD County:	Los Angeles
Waste Category:	Asbestos-containing waste
Disposal Method:	Disposal, Land Fill
Tons:	73.32
Facility County:	Los Angeles

HAZNET

S107142330
N/A

D30
SW
1/4-1/2
2411 ft.

Relative:
Lower

Actual:
632 ft.

UNIVERSAL CITY DENTAL CENTER
3535 CAHUENGA BLVD W STE 115
LOS ANGELES, CA 90068

Site 1 of 5 in cluster D

HAZNET:

Gepaid:	CAL000212925
Contact:	JIRAIR GASPARIAN DDS
Telephone:	3238745855
Facility Addr2:	Not reported

HAZNET

S105724615
N/A

UNIVERSAL CITY DENTAL CENTER (Continued) **S105724615**

Mailing Name:	Not reported
Mailing Address:	3535 CAHUENGA BLVD W STE 115
Mailing City,St,Zip:	LOS ANGELES, CA 900680000
Gen County:	Los Angeles
TSD EPA ID:	Not reported
TSD County:	Los Angeles
Waste Category:	Other inorganic solid waste
Disposal Method:	Transfer Station
Tons:	0
Facility County:	Not reported

Gepaid:	CAL000212925
Contact:	JIRAIR GASPARIAN DDS
Telephone:	3238745855
Facility Addr2:	Not reported
Mailing Name:	Not reported
Mailing Address:	3535 CAHUENGA BLVD W STE 115
Mailing City,St,Zip:	LOS ANGELES, CA 900680000
Gen County:	Los Angeles
TSD EPA ID:	Not reported
TSD County:	Santa Clara
Waste Category:	Other inorganic solid waste
Disposal Method:	Not reported
Tons:	0
Facility County:	Not reported

D31 **EDWARD KATZ INTERNATIONAL** **HAZNET** **S105093203**
SW **3535 CAHUENGA BLVD W STE 200** **N/A**
1/4-1/2 **LOS ANGELES, CA 90068**
2411 ft.

Site 2 of 5 in cluster D

Relative: Lower

Actual: 632 ft.

HAZNET:

Gepaid:	CAL000217111
Contact:	CAHUENGA BLVD ENTERPRISES
Telephone:	3102763322
Facility Addr2:	Not reported
Mailing Name:	Not reported
Mailing Address:	3535 CAHUENGA BLVD W STE 200
Mailing City,St,Zip:	LOS ANGELES, CA 900680000
Gen County:	Los Angeles
TSD EPA ID:	CAT000613976
TSD County:	Orange
Waste Category:	Hydrocarbon solvents (benzene, hexane, Stoddard, etc.)
Disposal Method:	Transfer Station
Tons:	.0625
Facility County:	Los Angeles

Gepaid:	CAL000217111
Contact:	EDWARD KATZ - PRES
Telephone:	3102763322
Facility Addr2:	Not reported
Mailing Name:	Not reported
Mailing Address:	3535 CAHUENGA BLVD W STE 200
Mailing City,St,Zip:	LOS ANGELES, CA 900680000
Gen County:	Los Angeles
TSD EPA ID:	CAT000613976
TSD County:	Los Angeles

EDWARD KATZ INTERNATIONAL (Continued) **S105093203**

Waste Category: Hydrocarbon solvents (benzene, hexane, Stoddard, etc.)
Disposal Method: Transfer Station
Tons: 0.05
Facility County: Los Angeles

Gepaid: CAL000217111
Contact: EDWARD KATZ - PRES
Telephone: 3102763322
Facility Addr2: Not reported
Mailing Name: Not reported
Mailing Address: 3535 CAHUENGA BLVD W STE 200
Mailing City,St,Zip: LOS ANGELES, CA 900680000
Gen County: Los Angeles
TSD EPA ID: CAT000613976
TSD County: Orange
Waste Category: Hydrocarbon solvents (benzene, hexane, Stoddard, etc.)
Disposal Method: Transfer Station
Tons: 0.05
Facility County: Not reported

Gepaid: CAL000217111
Contact: EDWARD KATZ - PRES
Telephone: 3102763322
Facility Addr2: Not reported
Mailing Name: Not reported
Mailing Address: 3535 CAHUENGA BLVD W STE 200
Mailing City,St,Zip: LOS ANGELES, CA 900680000
Gen County: Los Angeles
TSD EPA ID: Not reported
TSD County: Orange
Waste Category: Hydrocarbon solvents (benzene, hexane, Stoddard, etc.)
Disposal Method: Transfer Station
Tons: 0.21
Facility County: Not reported

Gepaid: CAL000217111
Contact: EDWARD KATZ - PRES
Telephone: 3102763322
Facility Addr2: Not reported
Mailing Name: Not reported
Mailing Address: 3535 CAHUENGA BLVD W STE 200
Mailing City,St,Zip: LOS ANGELES, CA 900680000
Gen County: Los Angeles
TSD EPA ID: Not reported
TSD County: Orange
Waste Category: Hydrocarbon solvents (benzene, hexane, Stoddard, etc.)
Disposal Method: Transfer Station
Tons: 0.10
Facility County: Not reported

Click this hyperlink while viewing on your computer to access additional CA_HAZNET: detail in the EDR Site Report.

D32
SW
1/4-1/2
2436 ft.

Relative:
Lower

Actual:
625 ft.

UNIVERSAL CITY NISSAN
3550 CAHUENGA BLVD WEST
LOS ANGELES, CA 90018

RCRA-SQG
FINDS
HAZNET

1000431635
CAD982040412

Site 3 of 5 in cluster D

RCRAInfo:
Owner: MOREY SAGE
(415) 555-1212
EPA ID: CAD982040412

Contact: Not reported

Classification: Small Quantity Generator
TSDF Activities: Not reported

Violation Status: No violations found

FINDS:
Other Pertinent Environmental Activity Identified at Site

RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

HAZNET:

Gepaid:	CAD982040412
Contact:	MORRIS SAGE, PRESIDENT
Telephone:	8187698100
Facility Addr2:	Not reported
Mailing Name:	Not reported
Mailing Address:	3550 CAHUENGA BLVD W
Mailing City,St,Zip:	LOS ANGELES, CA 900681304
Gen County:	Los Angeles
TSD EPA ID:	CAT080022148
TSD County:	San Bernardino
Waste Category:	Aqueous solution with metals (restricted levels and Alkaline solution (pH <UN-> 12.5) with metals (antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, copper, lead, mercury, molybdenum, nickel, selenium, silver, thallium, vanadium, and zinc))
Disposal Method:	Transfer Station
Tons:	.4587
Facility County:	Los Angeles

Gepaid:	CAD982040412
Contact:	MORRIS SAGE, PRESIDENT
Telephone:	8187698100
Facility Addr2:	Not reported
Mailing Name:	Not reported
Mailing Address:	3550 CAHUENGA BLVD W
Mailing City,St,Zip:	LOS ANGELES, CA 900681304
Gen County:	Los Angeles
TSD EPA ID:	CAD093459485
TSD County:	Fresno

UNIVERSAL CITY NISSAN (Continued) **1000431635**

Waste Category: Unspecified solvent mixture Waste
Disposal Method: Transfer Station
Tons: .1332
Facility County: Los Angeles

Gepaid: CAD982040412
Contact: MORRIS SAGE, PRESIDENT
Telephone: 8187698100
Facility Addr2: Not reported
Mailing Name: Not reported
Mailing Address: 3550 CAHUENGA BLVD W
Mailing City,St,Zip: LOS ANGELES, CA 900681304
Gen County: Los Angeles
TSD EPA ID: CAT080013352
TSD County: Los Angeles
Waste Category: Aqueous solution with 10% or more total organic residues
Disposal Method: Recycler
Tons: 11.7801
Facility County: Los Angeles

Gepaid: CAD982040412
Contact: ANTHONY MARTONE, SERVICE DIR
Telephone: 8187698100
Facility Addr2: Not reported
Mailing Name: Not reported
Mailing Address: 3550 CAHUENGA BLVD W
Mailing City,St,Zip: LOS ANGELES, CA 900681304
Gen County: Los Angeles
TSD EPA ID: CAT080013352
TSD County: Los Angeles
Waste Category: Oil/water separation sludge
Disposal Method: Recycler
Tons: 5.02
Facility County: Los Angeles

Gepaid: CAD982040412
Contact: ANTHONY MARTONE, SERVICE DIR
Telephone: 8187698100
Facility Addr2: Not reported
Mailing Name: Not reported
Mailing Address: 3550 CAHUENGA BLVD W
Mailing City,St,Zip: LOS ANGELES, CA 900681304
Gen County: Los Angeles
TSD EPA ID: CAT000613935
TSD County: Los Angeles
Waste Category: Aqueous solution with less than 10% total organic residues
Disposal Method: Transfer Station
Tons: 1.44
Facility County: Los Angeles

Click this hyperlink while viewing on your computer to access
42 additional CA_HAZNET: record(s) in the EDR Site Report.

D33
SW
1/4-1/2
2436 ft.

Relative:
Lower

Actual:
625 ft.

UNIVERSAL CITY NISSAN
3550 W CAHUENGA BLVD
LOS ANGELES, CA 90068

CA FID UST **S101617633**
N/A

Site 4 of 5 in cluster D

CA FID UST:

Facility ID:	19031425
Regulated By:	UTNKA
Regulated ID:	Not reported
Cortese Code:	Not reported
SIC Code:	Not reported
Facility Phone:	8187698100
Mail To:	Not reported
Mailing Address:	3550 W CAHUENGA BLVD
Mailing Address 2:	Not reported
Mailing City,St,Zip:	LOS ANGELES 900680000
Contact:	Not reported
Contact Phone:	Not reported
DUNs Number:	Not reported
NPDES Number:	Not reported
EPA ID:	Not reported
Comments:	Not reported
Status:	Active

D34
SW
1/4-1/2
2436 ft.

Relative:
Lower

Actual:
625 ft.

UNIVERSAL CITY NISSAN
3550 CAHUENGA BLVD
LOS ANGELES, CA 90068

HIST UST **U001562523**
SWEEPS UST **N/A**

Site 5 of 5 in cluster D

HIST UST:

Region:	STATE
Facility ID:	00000068634
Tank Num:	001
Container Num:	A (WEST TA
Year Installed:	Not reported
Tank Capacity:	00001000
Facility Type:	Other
Other Type:	NEW CAR-SALES/SERVIC
Total Tanks:	0003
Tank Used for:	WASTE
Type of Fuel:	5
Tank Construction:	Unkown inches
Leak Detection:	Pressure Test
Contact Name:	BILL SMULO
Telephone:	8187698100
Owner Name:	UNIVERSAL CITY DATSUN CORP
Owner Address:	3550 CAHUENGA BOULEVARD WEST
Owner City,St,Zip:	L.A., CA 90068

Region:	STATE
Facility ID:	00000068634
Tank Num:	002
Container Num:	B (CENTER)
Year Installed:	Not reported
Tank Capacity:	00001000
Facility Type:	Other
Other Type:	NEW CAR-SALES/SERVIC
Total Tanks:	0003

UNIVERSAL CITY NISSAN (Continued) **U001562523**

Tank Used for: WASTE
Type of Fuel: WASTE OIL
Tank Construction: Not reported
Leak Detection: Pressure Test
Contact Name: BILL SMULO
Telephone: 8187698100
Owner Name: UNIVERSAL CITY DATSUN CORP
Owner Address: 3550 CAHUENGA BOULEVARD WEST
Owner City,St,Zip: L.A., CA 90068

Region: STATE
Facility ID: 00000068634
Tank Num: 003
Container Num: C (EAST MO
Year Installed: Not reported
Tank Capacity: 00001000
Facility Type: Other
Other Type: NEW CAR-SALES/SERVIC
Total Tanks: 0003
Tank Used for: PRODUCT
Type of Fuel: Not reported
Tank Construction: Not reported
Leak Detection: Pressure Test
Contact Name: BILL SMULO
Telephone: 8187698100
Owner Name: UNIVERSAL CITY DATSUN CORP
Owner Address: 3550 CAHUENGA BOULEVARD WEST
Owner City,St,Zip: L.A., CA 90068

SWEEPS UST:
Status: Not reported
Comp Number: 6591
Number: Not reported
Board Of Equalization: Not reported
Ref Date: Not reported
Act Date: Not reported
Created Date: Not reported
Tank Status: Not reported
Owner Tank Id: Not reported
Swrcb Tank Id: Not reported
Actv Date: Not reported
Capacity: Not reported
Tank Use: Not reported
Stg: Not reported
Content: Not reported
Number Of Tanks: 0

E35 **HANNA BARBERA** **HAZNET** **S100936605**
South **3400 COHUENGA BLVD. W** **N/A**
1/4-1/2 **HOLLYWOOD, CA 90068**
2441 ft.

Site 1 of 4 in cluster E

Relative:
Lower

HAZNET:
Gepaid: CAL920885218
Actual: Contact: HANNA-BARBERA INC
692 ft. Telephone: 2138505000

HANNA BARBERA (Continued) **S100936605**

Facility Addr2:	Not reported
Mailing Name:	Not reported
Mailing Address:	4000 WARNER BLVD
Mailing City,St,Zip:	BURBANK, CA 915220001
Gen County:	Los Angeles
TSD EPA ID:	CAD008364432
TSD County:	Los Angeles
Waste Category:	Other still bottom waste
Disposal Method:	Recycler
Tons:	.1000
Facility County:	Los Angeles

Gepaid:	CAL920885218
Contact:	HANNA-BARBERA INC
Telephone:	2138505000
Facility Addr2:	Not reported
Mailing Name:	Not reported
Mailing Address:	4000 WARNER BLVD
Mailing City,St,Zip:	BURBANK, CA 915220001
Gen County:	Los Angeles
TSD EPA ID:	CAD008364432
TSD County:	Los Angeles
Waste Category:	Other organic solids
Disposal Method:	Recycler
Tons:	.1500
Facility County:	Los Angeles

Gepaid:	CAL920885218
Contact:	HANNA-BARBERA INC
Telephone:	2138505000
Facility Addr2:	Not reported
Mailing Name:	Not reported
Mailing Address:	4000 WARNER BLVD
Mailing City,St,Zip:	BURBANK, CA 915220001
Gen County:	Los Angeles
TSD EPA ID:	CAD000088252
TSD County:	Los Angeles
Waste Category:	Other organic solids
Disposal Method:	Transfer Station
Tons:	.0250
Facility County:	Los Angeles

Gepaid:	CAL920885218
Contact:	HANNA-BARBERA INC
Telephone:	2138505000
Facility Addr2:	Not reported
Mailing Name:	Not reported
Mailing Address:	4000 WARNER BLVD
Mailing City,St,Zip:	BURBANK, CA 915220001
Gen County:	Los Angeles
TSD EPA ID:	CAD000088252
TSD County:	Los Angeles
Waste Category:	Not reported
Disposal Method:	Transfer Station
Tons:	.0450
Facility County:	Los Angeles

HANNA BARBERA (Continued) **S100936605**

Gepaid:	CAL920885218
Contact:	HANNA-BARBERA INC
Telephone:	2138505000
Facility Addr2:	Not reported
Mailing Name:	Not reported
Mailing Address:	4000 WARNER BLVD
Mailing City,St,Zip:	BURBANK, CA 915220001
Gen County:	Los Angeles
TSD EPA ID:	CAD000088252
TSD County:	Los Angeles
Waste Category:	Unspecified solvent mixture Waste
Disposal Method:	Transfer Station
Tons:	.0725
Facility County:	Los Angeles

Click this hyperlink while viewing on your computer to access
6 additional CA_HAZNET: record(s) in the EDR Site Report.

E36 **HANNA-BARBERA PRODUCTIONS, INC** **RCRA-SQG** **1000306929**
South **3400 CAHUENGA BLVD** **FINDS** **CAD006907422**
1/4-1/2 **HOLLYWOOD, CA 90068**
2441 ft.

Site 2 of 4 in cluster E

Relative:
Lower

Actual:
692 ft.

RCRAInfo:

Owner:	PICO EDWARD PERSONNEL MGR
	(415) 555-1212
EPA ID:	CAD006907422
Contact:	ENVIRONMENTAL MANAGER
	(213) 851-5000
Classification:	Small Quantity Generator
TSDF Activities:	Not reported

Violation Status: No violations found

FINDS:

Other Pertinent Environmental Activity Identified at Site

RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

E37
South
1/4-1/2
2568 ft.

Relative:
Lower

Actual:
698 ft.

VANGUARD PHOTOGRAPHY
3371 CAHUENGA BLVD WEST
HOLLYWOOD, CA 90068

HAZNET

S105089508
N/A

Site 3 of 4 in cluster E

HAZNET:

Gepaid:	CAL000057730
Contact:	B LEE RUSH
Telephone:	0000000000
Facility Addr2:	Not reported
Mailing Name:	Not reported
Mailing Address:	3371 CAHUENGA BLVD WEST
Mailing City,St,Zip:	HOLLYWOOD, CA 900680000
Gen County:	Los Angeles
TSD EPA ID:	CAD982524613
TSD County:	Orange
Waste Category:	Photochemicals/photoprocessing waste
Disposal Method:	Recycler
Tons:	.0625
Facility County:	Los Angeles

E38
South
1/4-1/2
2568 ft.

Relative:
Lower

Actual:
698 ft.

VANGUARD PHOTOGRAPHY, INC
3371 CAHUENGA BLVD WEST
LOS ANGELES, CA 90068

RCRA-SQG
FINDS

1000237239
CAD981453921

Site 4 of 4 in cluster E

RCRAInfo:

Owner: VANGUARD PHOTOGRAPHY, INC
(415) 555-1212
EPA ID: CAD981453921

Contact: ENVIRONMENTAL MANAGER
(213) 874-3980

Classification: Small Quantity Generator
TSDF Activities: Not reported

Violation Status: No violations found

FINDS:

Other Pertinent Environmental Activity Identified at Site

RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

F39
West
1/4-1/2
2628 ft.

Relative:
Lower

Actual:
690 ft.

SHERATON PREMIERE HOTEL
555 UNIVERSAL TERRACE PKWY
UNIVERSAL CITY, CA 91608

Site 1 of 6 in cluster F

UST
LOS ANGELES CO. HMS
HIST UST
EMI
SWEEPS UST

U001568629
N/A

UST:
Region: STATE
Local Agency: Los Angeles, Los Angeles County
Facility ID: 25532

LOS ANGELES CO. HMS:
Region: LA
Facility Id: 028153-039616
Facility Status: OPEN
Area: 59
Permit Number: Not reported
Permit Status: Not reported
Facility Type: Not reported

HIST UST:
Region: STATE
Facility ID: 00000055322
Tank Num: 001
Container Num: 2
Year Installed: 1983
Tank Capacity: 00001000
Facility Type: Other
Other Type: HOTEL
Total Tanks: 0002
Tank Used for: PRODUCT
Type of Fuel: DIESEL
Tank Construction: 3/8 inches
Leak Detection: Visual
Contact Name: RALPH PHILLIPS
Telephone: 8185062500
Owner Name: HOTEL II ASSOCIATES - SHERATOR
Owner Address: 555 UNIVERSAL TERRACE PARKWAY
Owner City,St,Zip: UNIVERSAL CITY, CA 91608

Region: STATE
Facility ID: 00000055322
Tank Num: 002
Container Num: 1
Year Installed: 1983
Tank Capacity: 00002000
Facility Type: Other
Other Type: HOTEL
Total Tanks: 0002
Tank Used for: PRODUCT
Type of Fuel: DIESEL
Tank Construction: 3/8 inches
Leak Detection: Visual
Contact Name: RALPH PHILLIPS
Telephone: 8185062500
Owner Name: HOTEL II ASSOCIATES - SHERATOR
Owner Address: 555 UNIVERSAL TERRACE PARKWAY
Owner City,St,Zip: UNIVERSAL CITY, CA 91608

SHERATON PREMIERE HOTEL (Continued) **U001568629**

EMI:

Year:	1987
Carbon Monoxide Emissions Tons/Yr:	19
Air Basin:	SC
Facility ID:	58395
Air District Name:	SC
SIC Code:	9999
Air District Name:	SOUTH COAST AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	1
Reactive Organic Gases Tons/Yr:	0
Carbon Monoxide Emissions Tons/Yr:	0
NOX - Oxides of Nitrogen Tons/Yr:	0
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers & Smllr Tons/Yr:	0

Year:	1990
Carbon Monoxide Emissions Tons/Yr:	19
Air Basin:	SC
Facility ID:	79589
Air District Name:	SC
SIC Code:	7216
Air District Name:	SOUTH COAST AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	2
Reactive Organic Gases Tons/Yr:	1
Carbon Monoxide Emissions Tons/Yr:	1
NOX - Oxides of Nitrogen Tons/Yr:	5
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers & Smllr Tons/Yr:	0

Year:	1995
Carbon Monoxide Emissions Tons/Yr:	19
Air Basin:	SC
Facility ID:	79589
Air District Name:	SC
SIC Code:	7216
Air District Name:	SOUTH COAST AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	2
Reactive Organic Gases Tons/Yr:	1
Carbon Monoxide Emissions Tons/Yr:	1
NOX - Oxides of Nitrogen Tons/Yr:	2
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers & Smllr Tons/Yr:	0

Year:	1996
Carbon Monoxide Emissions Tons/Yr:	19
Air Basin:	SC
Facility ID:	79589
Air District Name:	SC

SHERATON PREMIERE HOTEL (Continued) **U001568629**

SIC Code:	7216
Air District Name:	SOUTH COAST AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	2
Reactive Organic Gases Tons/Yr:	0
Carbon Monoxide Emissions Tons/Yr:	1
NOX - Oxides of Nitrogen Tons/Yr:	2
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers & Smllr Tons/Yr:	0

Year:	1997
Carbon Monoxide Emissions Tons/Yr:	19
Air Basin:	SC
Facility ID:	79589
Air District Name:	SC
SIC Code:	7216
Air District Name:	SOUTH COAST AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	2
Reactive Organic Gases Tons/Yr:	0
Carbon Monoxide Emissions Tons/Yr:	1
NOX - Oxides of Nitrogen Tons/Yr:	2
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers & Smllr Tons/Yr:	0

Year:	1998
Carbon Monoxide Emissions Tons/Yr:	19
Air Basin:	SC
Facility ID:	79589
Air District Name:	SC
SIC Code:	7216
Air District Name:	SOUTH COAST AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	2
Reactive Organic Gases Tons/Yr:	0
Carbon Monoxide Emissions Tons/Yr:	1
NOX - Oxides of Nitrogen Tons/Yr:	2
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers & Smllr Tons/Yr:	0

Year:	1999
Carbon Monoxide Emissions Tons/Yr:	19
Air Basin:	SC
Facility ID:	79589
Air District Name:	SC
SIC Code:	7216
Air District Name:	SOUTH COAST AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	2
Reactive Organic Gases Tons/Yr:	0

SHERATON PREMIERE HOTEL (Continued) **U001568629**

Carbon Monoxide Emissions Tons/Yr:	1
NOX - Oxides of Nitrogen Tons/Yr:	2
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers & Smllr Tons/Yr:	0

Year:	2000
Carbon Monoxide Emissions Tons/Yr:	19
Air Basin:	SC
Facility ID:	79589
Air District Name:	SC
SIC Code:	7216
Air District Name:	SOUTH COAST AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	2
Reactive Organic Gases Tons/Yr:	0
Carbon Monoxide Emissions Tons/Yr:	1
NOX - Oxides of Nitrogen Tons/Yr:	2
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers & Smllr Tons/Yr:	0

Year:	2001
Carbon Monoxide Emissions Tons/Yr:	19
Air Basin:	SC
Facility ID:	79589
Air District Name:	SC
SIC Code:	7216
Air District Name:	SOUTH COAST AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	2
Reactive Organic Gases Tons/Yr:	1
Carbon Monoxide Emissions Tons/Yr:	1
NOX - Oxides of Nitrogen Tons/Yr:	2
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers & Smllr Tons/Yr:	0

Year:	2002
Carbon Monoxide Emissions Tons/Yr:	19
Air Basin:	SC
Facility ID:	79589
Air District Name:	SC
SIC Code:	7216
Air District Name:	SOUTH COAST AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	0
Reactive Organic Gases Tons/Yr:	0
Carbon Monoxide Emissions Tons/Yr:	1
NOX - Oxides of Nitrogen Tons/Yr:	2
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers & Smllr Tons/Yr:	0

SHERATON PREMIERE HOTEL (Continued) **U001568629**

Year:	2003
Carbon Monoxide Emissions Tons/Yr:	19
Air Basin:	SC
Facility ID:	79589
Air District Name:	SC
SIC Code:	7216
Air District Name:	SOUTH COAST AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	0
Reactive Organic Gases Tons/Yr:	0
Carbon Monoxide Emissions Tons/Yr:	1
NOX - Oxides of Nitrogen Tons/Yr:	2
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers & Smllr Tons/Yr:	0

Year:	2004
Carbon Monoxide Emissions Tons/Yr:	19
Air Basin:	SC
Facility ID:	79589
Air District Name:	SC
SIC Code:	7216
Air District Name:	SOUTH COAST AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	0.36677
Reactive Organic Gases Tons/Yr:	0.19
Carbon Monoxide Emissions Tons/Yr:	1.0692
NOX - Oxides of Nitrogen Tons/Yr:	1.778
SOX - Oxides of Sulphur Tons/Yr:	0.0126
Particulate Matter Tons/Yr:	0.12445
Part. Matter 10 Micrometers & Smllr Tons/Yr:	0.12

Year:	2005
Carbon Monoxide Emissions Tons/Yr:	19
Air Basin:	SC
Facility ID:	79589
Air District Name:	SC
SIC Code:	7216
Air District Name:	SOUTH COAST AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	.10512
Reactive Organic Gases Tons/Yr:	.05396674
Carbon Monoxide Emissions Tons/Yr:	1.05345
NOX - Oxides of Nitrogen Tons/Yr:	1.715
SOX - Oxides of Sulphur Tons/Yr:	.011295
Particulate Matter Tons/Yr:	.12085
Part. Matter 10 Micrometers & Smllr Tons/Yr:	.1197481

SWEEPS UST:

Status:	A
Comp Number:	2923
Number:	1
Board Of Equalization:	44-012642
Ref Date:	02-25-93

SHERATON PREMIERE HOTEL (Continued) **U001568629**

Act Date:	04-26-94
Created Date:	02-29-88
Tank Status:	A
Owner Tank Id:	Not reported
Swrcb Tank Id:	19-050-002923-000001
Actv Date:	04-20-88
Capacity:	1000
Tank Use:	M.V. FUEL
Stg:	P
Content:	DIESEL
Number Of Tanks:	2
Status:	A
Comp Number:	2923
Number:	1
Board Of Equalization:	44-012642
Ref Date:	02-25-93
Act Date:	04-26-94
Created Date:	02-29-88
Tank Status:	A
Owner Tank Id:	Not reported
Swrcb Tank Id:	19-050-002923-000002
Actv Date:	04-20-88
Capacity:	2000
Tank Use:	M.V. FUEL
Stg:	P
Content:	DIESEL
Number Of Tanks:	Not reported

F40 **UNIVERSAL SHERIDAN HOTEL** **HAZNET** **S103993383**
West **333 UNIVERSAL TERRACE PKWY** **N/A**
1/4-1/2 **UNIVERSAL CITY, CA 91608**
2628 ft.

Site 2 of 6 in cluster F

Relative: Lower

Actual: 690 ft.

HAZNET:

Gepaid:	CAC001392048
Contact:	UNIVERSAL SHERIDAN HOTEL
Telephone:	8185092705
Facility Addr2:	Not reported
Mailing Name:	Not reported
Mailing Address:	333 UNIVERSAL TERRACE PKWY
Mailing City,St,Zip:	UNIVERSAL CITY, CA 916080000
Gen County:	Los Angeles
TSD EPA ID:	CAT080013352
TSD County:	Los Angeles
Waste Category:	Unspecified oil-containing waste
Disposal Method:	Recycler
Tons:	2.773
Facility County:	Los Angeles
Gepaid:	CAC001392048
Contact:	UNIVERSAL SHERIDAN HOTEL
Telephone:	8185092705
Facility Addr2:	Not reported
Mailing Name:	Not reported
Mailing Address:	333 UNIVERSAL TERRACE PKWY
Mailing City,St,Zip:	UNIVERSAL CITY, CA 916080000

UNIVERSAL SHERIDAN HOTEL (Continued) **S103993383**

Gen County: Los Angeles
TSD EPA ID: CAT080025711
TSD County: San Bernardino
Waste Category: Aqueous solution with less than 10% total organic residues
Disposal Method: Recycler
Tons: .2085
Facility County: Los Angeles

F41 **THE SHERATON UNIVERSAL HOTEL** **HAZNET** **S103991073**
West **333 UNIVERSAL TERRACE PARKWAY** **EMI** **N/A**
1/4-1/2 **UNIVERSAL CITY, CA 91608**
2628 ft.

Site 3 of 6 in cluster F

Relative: Lower

Actual: 690 ft.

HAZNET:
Gepaid: CAC001421640
Contact: SHERATON HOTELS
Telephone: 8185092705
Facility Addr2: Not reported
Mailing Name: Not reported
Mailing Address: 333 UNIVERSAL TERRACE PARKWAY
Mailing City,St,Zip: UNIVERSAL CITY, CA 916080000
Gen County: Los Angeles
TSD EPA ID: CAD982484933
TSD County: 7
Waste Category: Other empty containers 30 gallons or more
Disposal Method: Recycler
Tons: 0.25
Facility County: Los Angeles

Gepaid: CAC001421640
Contact: SHERATON HOTELS
Telephone: 8185092705
Facility Addr2: Not reported
Mailing Name: Not reported
Mailing Address: 333 UNIVERSAL TERRACE PARKWAY
Mailing City,St,Zip: UNIVERSAL CITY, CA 916080000
Gen County: Los Angeles
TSD EPA ID: CAT080013352
TSD County: Los Angeles
Waste Category: Tank bottom waste
Disposal Method: Recycler
Tons: 4.17
Facility County: Los Angeles

Gepaid: CAC001421640
Contact: SHERATON HOTELS
Telephone: 8185092705
Facility Addr2: Not reported
Mailing Name: Not reported
Mailing Address: 333 UNIVERSAL TERRACE PARKWAY
Mailing City,St,Zip: UNIVERSAL CITY, CA 916080000
Gen County: Los Angeles
TSD EPA ID: CAD099452708
TSD County: Los Angeles
Waste Category: Waste oil and mixed oil
Disposal Method: Recycler
Tons: 2.0850

THE SHERATON UNIVERSAL HOTEL (Continued) **S103991073**

Facility County: Los Angeles

Gepaid: CAC001421640
Contact: SHERATON HOTELS
Telephone: 8185092705
Facility Addr2: Not reported
Mailing Name: Not reported
Mailing Address: 333 UNIVERSAL TERRACE PARKWAY
Mailing City,St,Zip: UNIVERSAL CITY, CA 916080000
Gen County: Los Angeles
TSD EPA ID: CAT080013352
TSD County: Los Angeles
Waste Category: Tank bottom waste
Disposal Method: Recycler
Tons: 41.7000
Facility County: Los Angeles

Click this hyperlink while viewing on your computer to access
-1 additional CA_HAZNET: record(s) in the EDR Site Report.

EMI:

Year: 1990
Carbon Monoxide Emissions Tons/Yr: 19
Air Basin: SC
Facility ID: 12441
Air District Name: SC
SIC Code: 7011
Air District Name: SOUTH COAST AQMD
Community Health Air Pollution Info System: Not reported
Consolidated Emission Reporting Rule: Not reported
Total Organic Hydrocarbon Gases Tons/Yr: 0
Reactive Organic Gases Tons/Yr: 0
Carbon Monoxide Emissions Tons/Yr: 0
NOX - Oxides of Nitrogen Tons/Yr: 0
SOX - Oxides of Sulphur Tons/Yr: 0
Particulate Matter Tons/Yr: 0
Part. Matter 10 Micrometers & Smllr Tons/Yr: 0

Year: 1995
Carbon Monoxide Emissions Tons/Yr: 19
Air Basin: SC
Facility ID: 12441
Air District Name: SC
SIC Code: 7011
Air District Name: SOUTH COAST AQMD
Community Health Air Pollution Info System: Not reported
Consolidated Emission Reporting Rule: Not reported
Total Organic Hydrocarbon Gases Tons/Yr: 1
Reactive Organic Gases Tons/Yr: 0
Carbon Monoxide Emissions Tons/Yr: 0
NOX - Oxides of Nitrogen Tons/Yr: 1
SOX - Oxides of Sulphur Tons/Yr: 0
Particulate Matter Tons/Yr: 0
Part. Matter 10 Micrometers & Smllr Tons/Yr: 0

Year: 1996
Carbon Monoxide Emissions Tons/Yr: 19

THE SHERATON UNIVERSAL HOTEL (Continued) **S103991073**

Air Basin:	SC
Facility ID:	12441
Air District Name:	SC
SIC Code:	7011
Air District Name:	SOUTH COAST AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	4
Reactive Organic Gases Tons/Yr:	2
Carbon Monoxide Emissions Tons/Yr:	0
NOX - Oxides of Nitrogen Tons/Yr:	1
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers & Smllr Tons/Yr:	0

Year:	1997
Carbon Monoxide Emissions Tons/Yr:	19
Air Basin:	SC
Facility ID:	12441
Air District Name:	SC
SIC Code:	7011
Air District Name:	SOUTH COAST AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	3
Reactive Organic Gases Tons/Yr:	2
Carbon Monoxide Emissions Tons/Yr:	0
NOX - Oxides of Nitrogen Tons/Yr:	1
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers & Smllr Tons/Yr:	0

Year:	1998
Carbon Monoxide Emissions Tons/Yr:	19
Air Basin:	SC
Facility ID:	12441
Air District Name:	SC
SIC Code:	7011
Air District Name:	SOUTH COAST AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	3
Reactive Organic Gases Tons/Yr:	2
Carbon Monoxide Emissions Tons/Yr:	0
NOX - Oxides of Nitrogen Tons/Yr:	1
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers & Smllr Tons/Yr:	0

Year:	1999
Carbon Monoxide Emissions Tons/Yr:	19
Air Basin:	SC
Facility ID:	12441
Air District Name:	SC
SIC Code:	7011
Air District Name:	SOUTH COAST AQMD
Community Health Air Pollution Info System:	Not reported

THE SHERATON UNIVERSAL HOTEL (Continued) **S103991073**

Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	3
Reactive Organic Gases Tons/Yr:	2
Carbon Monoxide Emissions Tons/Yr:	0
NOX - Oxides of Nitrogen Tons/Yr:	1
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers & Smllr Tons/Yr:	0

Year:	2000
Carbon Monoxide Emissions Tons/Yr:	19
Air Basin:	SC
Facility ID:	12441
Air District Name:	SC
SIC Code:	7011
Air District Name:	SOUTH COAST AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	3
Reactive Organic Gases Tons/Yr:	2
Carbon Monoxide Emissions Tons/Yr:	0
NOX - Oxides of Nitrogen Tons/Yr:	1
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers & Smllr Tons/Yr:	0

Year:	2001
Carbon Monoxide Emissions Tons/Yr:	19
Air Basin:	SC
Facility ID:	12441
Air District Name:	SC
SIC Code:	7011
Air District Name:	SOUTH COAST AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	3
Reactive Organic Gases Tons/Yr:	2
Carbon Monoxide Emissions Tons/Yr:	0
NOX - Oxides of Nitrogen Tons/Yr:	1
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers & Smllr Tons/Yr:	0

F42 **NORITSU AMERICA CORP** **HAZNET** **S104565529**
West **333 UNIVERSAL TERRACE WAY** **N/A**
1/4-1/2 **UNIVERSAL CITY, CA 91608**
2628 ft.

Site 4 of 6 in cluster F

Relative:
Lower

Actual:
690 ft.

HAZNET:

Gepaid:	CAC001105976
Contact:	NORITSU AMERICA CORP
Telephone:	7145219040
Facility Addr2:	Not reported
Mailing Name:	Not reported
Mailing Address:	6900 NORITSU AVE
Mailing City,St,Zip:	BUENA PARK, CA 906220000
Gen County:	Los Angeles

NORITSU AMERICA CORP (Continued) **S104565529**

TSD EPA ID: CAT000613976
TSD County: Orange
Waste Category: Photochemicals/photoprocessing waste
Disposal Method: Transfer Station
Tons: .1251
Facility County: Los Angeles

F43
West
1/4-1/2
2628 ft.

Relative:
Lower

Actual:
690 ft.

SHERATON PREMIERE HOTEL **CA FID UST** **S101618726**
555 UNIVERSAL TERRACE PW **N/A**
UNIVERSAL CITY, CA 91608

Site 5 of 6 in cluster F

CA FID UST:
Facility ID: 19016717
Regulated By: UTNKA
Regulated ID: 00055322
Cortese Code: Not reported
SIC Code: Not reported
Facility Phone: 8185062500
Mail To: Not reported
Mailing Address: 555 UNIVERSAL TERRACE PKY
Mailing Address 2: Not reported
Mailing City,St,Zip: UNIVERSAL CITY 916080000
Contact: Not reported
Contact Phone: Not reported
DUNs Number: Not reported
NPDES Number: Not reported
EPA ID: Not reported
Comments: Not reported
Status: Active

F44
West
1/4-1/2
2628 ft.

Relative:
Lower

Actual:
690 ft.

SHERATON UNIVERSAL HOTEL **RCRA-SQG** **1000353895**
333 UNIVERSAL TERRACE PKWY **FINDS** **CAD981633308**
UNIVERSAL CITY, CA 91608 **HAZNET**
UST
Site 6 of 6 in cluster F **CA FID UST**
LOS ANGELES CO. HMS
HIST UST
SWEEPS UST

RCRAInfo:
Owner: NOT REQUIRED
(415) 555-1212
EPA ID: CAD981633308

Contact: Not reported

Classification: Small Quantity Generator
TSDF Activities: Not reported

SHERATON UNIVERSAL HOTEL (Continued) **1000353895**

Violation Status: No violations found

FINDS:
Other Pertinent Environmental Activity Identified at Site

The NEI (National Emissions Inventory) database contains information on stationary and mobile sources that emit criteria air pollutants and their precursors, as well as hazardous air pollutants (HAPs).

RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

HAZNET:

Gepaid:	CAC001166784
Contact:	SHERATON UNIVERSAL HOTEL
Telephone:	8189801212
Facility Addr2:	Not reported
Mailing Name:	Not reported
Mailing Address:	333 UNIVERSAL TERRACE PKWY
Mailing City,St,Zip:	UNIVERSAL CITY, CA 916080000
Gen County:	Los Angeles
TSD EPA ID:	CAT080025711
TSD County:	San Bernardino
Waste Category:	Aqueous solution with less than 10% total organic residues
Disposal Method:	Recycler
Tons:	.0625
Facility County:	Los Angeles

Gepaid:	CAC001224000
Contact:	SHERATON UNIVERSAL HOTEL
Telephone:	8189801212
Facility Addr2:	Not reported
Mailing Name:	Not reported
Mailing Address:	333 UNIVERSAL TERRACE PKWY
Mailing City,St,Zip:	UNIVERSAL CITY, CA 916080000
Gen County:	Los Angeles
TSD EPA ID:	CAT080013352
TSD County:	Los Angeles
Waste Category:	Tank bottom waste
Disposal Method:	Recycler
Tons:	.6880
Facility County:	Los Angeles

Gepaid:	CAC001166784
Contact:	SHERATON UNIVERSAL HOTEL
Telephone:	8189801212
Facility Addr2:	Not reported
Mailing Name:	Not reported

SHERATON UNIVERSAL HOTEL (Continued) **1000353895**

Mailing Address: 333 UNIVERSAL TERRACE PKWY
Mailing City,St,Zip: UNIVERSAL CITY, CA 916080000
Gen County: Los Angeles
TSD EPA ID: CAD009007626
TSD County: Los Angeles
Waste Category: Asbestos-containing waste
Disposal Method: Disposal, Land Fill
Tons: .5056
Facility County: Los Angeles

Gepaid: CAC001325664
Contact: SHERATON UNIVERSAL HOTEL
Telephone: 8185092705
Facility Addr2: Not reported
Mailing Name: Not reported
Mailing Address: 333 UNIVERSAL TERRACE PKWY
Mailing City,St,Zip: UNIVERSAL CITY, CA 916080000
Gen County: Los Angeles
TSD EPA ID: CAT080013352
TSD County: Los Angeles
Waste Category: Oil/water separation sludge
Disposal Method: Recycler
Tons: 2.2935
Facility County: Los Angeles

Gepaid: CAC001206368
Contact: Not reported
Telephone: 0000000000
Facility Addr2: Not reported
Mailing Name: Not reported
Mailing Address: 333 UNIVERSAL TERRACE PKWY
Mailing City,St,Zip: UNIVERSAL CITY, CA 916080000
Gen County: Los Angeles
TSD EPA ID: CAD009007626
TSD County: Los Angeles
Waste Category: Asbestos-containing waste
Disposal Method: Disposal, Land Fill
Tons: 16.8560
Facility County: Los Angeles

Click this hyperlink while viewing on your computer to access additional CA_HAZNET: detail in the EDR Site Report.

UST:
Region: STATE
Local Agency: Los Angeles, Los Angeles County
Facility ID: 25530

CA FID UST:
Facility ID: 19009566
Regulated By: UTNKA
Regulated ID: 00041426
Cortese Code: Not reported
SIC Code: Not reported
Facility Phone: 8189801212
Mail To: Not reported

SHERATON UNIVERSAL HOTEL (Continued) **1000353895**

Mailing Address: 333 UNIVERSAL TERRACE PKY
Mailing Address 2: Not reported
Mailing City,St,Zip: UNIVERSAL CITY 916080000
Contact: Not reported
Contact Phone: Not reported
DUNs Number: Not reported
NPDES Number: Not reported
EPA ID: Not reported
Comments: Not reported
Status: Active

LOS ANGELES CO. HMS:
Region: LA
Facility Id: 028152-039615
Facility Status: OPEN
Area: 59
Permit Number: Not reported
Permit Status: Not reported
Facility Type: Not reported

HIST UST:
Region: STATE
Facility ID: 00000041426
Tank Num: 001
Container Num: ONE
Year Installed: 1968
Tank Capacity: 00010000
Facility Type: Other
Other Type: HOTEL
Total Tanks: 0002
Tank Used for: PRODUCT
Type of Fuel: DIESEL
Tank Construction: Not reported
Leak Detection: Stock Inventor
Contact Name: DIETER JANSSEN,
Telephone: 8189801212
Owner Name: SAN FERNANDO SHERATON CORP
Owner Address: 333 UNIVERSAL TERRACE PARKWAY
Owner City,St,Zip: UNIVERSAL CITY, CA 91608

Region: STATE
Facility ID: 00000041426
Tank Num: 002
Container Num: TWO
Year Installed: 1968
Tank Capacity: 00000500
Facility Type: Other
Other Type: HOTEL
Total Tanks: 0002
Tank Used for: PRODUCT
Type of Fuel: DIESEL
Tank Construction: Not reported
Leak Detection: Stock Inventor
Contact Name: DIETER JANSSEN,
Telephone: 8189801212
Owner Name: SAN FERNANDO SHERATON CORP

SHERATON UNIVERSAL HOTEL (Continued) **1000353895**

Owner Address: 333 UNIVERSAL TERRACE PARKWAY
Owner City,St,Zip: UNIVERSAL CITY, CA 91608

SWEEPS UST:
Status: A
Comp Number: 2262
Number: 1
Board Of Equalization: 44-012231
Ref Date: 07-21-93
Act Date: 04-25-94
Created Date: 02-29-88
Tank Status: A
Owner Tank Id: Not reported
Swrcb Tank Id: 19-050-002262-000001
Actv Date: 04-20-88
Capacity: 10000
Tank Use: M.V. FUEL
Stg: P
Content: DIESEL
Number Of Tanks: 2

Status: A
Comp Number: 2262
Number: 1
Board Of Equalization: 44-012231
Ref Date: 07-21-93
Act Date: 04-25-94
Created Date: 02-29-88
Tank Status: A
Owner Tank Id: Not reported
Swrcb Tank Id: 19-050-002262-000002
Actv Date: 04-20-88
Capacity: 500
Tank Use: M.V. FUEL
Stg: P
Content: DIESEL
Number Of Tanks: Not reported

G45 **UNITEL VIDEO INC** **RCRA-SQG** **1000819063**
South **3330 CAHUENGA BLVD WEST** **FINDS** **CAD983650292**
1/2-1 **LOS ANGELES, CA 90068** **HAZNET**
2824 ft.

Site 1 of 2 in cluster G

Relative:
Lower

Actual:
700 ft.

RCRAInfo:
Owner: WOLFE SESNON BUTTERY
(818) 840-6440
EPA ID: CAD983650292

Contact: MARK MILLER
(213) 878-5800

Classification: Small Quantity Generator
TSDF Activities: Not reported

UNITEL VIDEO INC (Continued) **1000819063**

Violation Status: No violations found

FINDS:
Other Pertinent Environmental Activity Identified at Site

RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

HAZNET:

Gepaid:	CAD983650292
Contact:	WOLFE SESNON BUTTERY
Telephone:	0000000000
Facility Addr2:	Not reported
Mailing Name:	Not reported
Mailing Address:	3330 CAHUENGA BLVD W
Mailing City,St,Zip:	LOS ANGELES, CA 900680000
Gen County:	Los Angeles
TSD EPA ID:	CAD009452657
TSD County:	San Mateo
Waste Category:	Halogenated solvents (chloroform, methyl chloride, perchloroethylene, etc.)
Disposal Method:	Recycler
Tons:	.2293
Facility County:	Los Angeles

H46 **DEIRMENDJIAN EXXON STATION** **CA FID UST** **S101582942**
WSW **3640 CAHUENGA BLVD** **N/A**
1/2-1 **LOS ANGELES, CA 90028**
2866 ft.

Site 1 of 4 in cluster H

Relative: Lower

Actual: 619 ft.

CA FID UST:

Facility ID:	19001944
Regulated By:	UTNKI
Regulated ID:	Not reported
Cortese Code:	Not reported
SIC Code:	Not reported
Facility Phone:	8189805760
Mail To:	Not reported
Mailing Address:	3640 CAHUENGA BLVD
Mailing Address 2:	Not reported
Mailing City,St,Zip:	LOS ANGELES 900280000
Contact:	Not reported
Contact Phone:	Not reported
DUNs Number:	Not reported
NPDES Number:	Not reported
EPA ID:	Not reported
Comments:	Not reported
Status:	Inactive

H47
WSW
1/2-1
2866 ft.

Relative:
Lower

Actual:
619 ft.

EXXON #7-3017
3640 CAHUENGA BLVD
HOLLYWOOD, CA 90028

LUST **S105051316**
N/A

Site 2 of 4 in cluster H

LUST:

Region:	STATE	
Case Type:	Other ground water affected	
Cross Street:	REGAL ST	
Enf Type:	Not reported	
Funding:	Not reported	
How Discovered:	Subsurface Monitoring	
How Stopped:	Not reported	
Leak Cause:	UNK	
Leak Source:	UNK	
Global Id:	T0603700754	
Stop Date:	Not reported	
Confirm Leak:	Not reported	
Workplan:	Not reported	
Prelim Assess:	Not reported	
Pollution Char:	1989-10-13 00:00:00	
Remed Plan:	1990-03-13 00:00:00	
Remed Action:	1991-09-05 00:00:00	
Monitoring:	Not reported	
Close Date:	1994-11-08 00:00:00	
Discover Date:	1987-12-28 00:00:00	
Enforcement Dt:	Not reported	
Release Date:	1988-09-16 00:00:00	
Review Date:	1994-10-18 00:00:00	
Enter Date:	Not reported	
MTBE Date:	Not reported	
GW Qualifier:	Not reported	
Soil Qualifier:	Not reported	
Max MTBE GW ppb:	Not reported	
Max MTBE Soil ppb:	Not reported	
County:	19	
Org Name:	Not reported	
Reg Board:	Los Angeles Region	
Status:	Case Closed	
Chemical:	Gasoline	
Contact Person:	Not reported	
Responsible Party:	EXXON CO, USA	
RP Address:	PO BOX 4415, HOUSTON, TX 77210	C
Interim:	Yes	
Oversight Prgm:	LUST	
MTBE Class:	*	
MTBE Conc:	0	
MTBE Fuel:	1	
MTBE Tested:	Site NOT Tested for MTBE.Includes Unknown and Not Analyzed.	
Staff:	YR	
Staff Initials:	PEJ	
Lead Agency:	Regional Board	
Local Agency:	19050	
Hydr Basin #:	UNNAMED BASIN	
Beneficial:	Not reported	
Priority:	Not reported	
Cleanup Fund Id:	Not reported	
Work Suspended:	Not reported	

EXXON #7-3017 (Continued) **S105051316**

Local Case #: Not reported
Case Number: 900280043
Qty Leaked: Not reported
Abate Method: Excavate and Treat - remove contaminated soil and treat (includes spreading or land farming)
Operator: Not reported
Water System Name: Not reported
Well Name: Not reported
Distance To Lust: 0
Waste Discharge Global ID: Not reported
Waste Disch Assigned Name: Not reported
Summary: SOIL TPH (MAX 200 MG/KG), WATER TPH (MAX 200 UG/L) CASE CLOSED 11-08-94.

LUST:
Region: 4
Staff: UNK
County: Los Angeles
Local Agency: 19050
Lead Agency: Regional Board
Case Type: Groundwater
Status: Case Closed
Substance: Gasoline
Cross Street: REGAL ST
Global ID: T0603700754
Enforcement Type: Not reported
Date Leak Discovered: 12/28/1987
Date Leak Record Entered: Not reported
How Leak Discovered: Subsurface Monitoring
How Leak Stopped: Not reported
Cause of Leak: UNK
Leak Source: UNK
Date Leak Stopped: Not reported
Date Confirmation Began: Not reported
Operator: Not reported
Water System: Not reported
Well Name: Not reported
Approx. Dist To Production Well (ft): 8519.64752663077175315346268
Abatement Method Used at the Site: Excavate and Treat
Source of Cleanup Funding: Excavate and Treat
Date Leak First Reported: 9/16/1988
Preliminary Site Assessment Workplan Submitted: Not reported
Preliminary Site Assessment Began: Not reported
Pollution Characterization Began: 10/13/1989
Remediation Plan Submitted: 3/13/1990
Remedial Action Underway: 9/5/1991
Post Remedial Action Monitoring Began: Not reported
Date the Case was Closed: 11/8/1994
Date Case Last Changed on Database: 10/18/1994
Enforcement Action Date: Not reported
Historical Max MTBE Date: Not reported
Hist Max MTBE Conc in Groundwater: Not reported
Hist Max MTBE Conc in Soil: Not reported
Significant Interim Remedial Action Taken: Yes
GW Qualifier: Not reported
Soil Qualifier: Not reported
Organization: Not reported

EXXON #7-3017 (Continued) **S105051316**

Regional Board:	04
Owner Contact:	Not reported
Responsible Party:	EXXON CO, USA
RP Address:	PO BOX 4415, HOUSTON, TX 77210
Program:	LUST
Lat/Long:	34.1346344 / -1
Local Agency Staff:	PEJ
Beneficial Use:	Not reported
Priority:	Not reported
Cleanup Fund Id:	Not reported
Suspended:	Not reported
Local Case No:	Not reported
Substance Quantity:	Not reported
Assigned Name:	Not reported
W Global ID:	Not reported
Summary:	SOIL TPH (MAX 200 MG/KG), WATER TPH (MAX 200 UG/L) CASE CLOSED 11-08-94.

H48 **EXXON SERVICE STATION** **HIST UST** **U001562517**
WSW **3640 CAHUENGA BLVD W** **N/A**
1/2-1 **LOS ANGELES, CA 90068**
2866 ft.

Site 3 of 4 in cluster H

Relative: Lower

Actual: 619 ft.

HIST UST:

Region:	STATE
Facility ID:	00000029493
Tank Num:	001
Container Num:	#1
Year Installed:	1970
Tank Capacity:	00006000
Facility Type:	Gas Station
Other Type:	Not reported
Total Tanks:	0004
Tank Used for:	PRODUCT
Type of Fuel:	PREMIUM
Tank Construction:	Not reported
Leak Detection:	Stock Inventor
Contact Name:	Not reported
Telephone:	2139805760
Owner Name:	EXXON COMPANY U.S.A.
Owner Address:	16945 NORTHCHASE BLVD.
Owner City,St,Zip:	HOUSTON, TX 77210

Region:	STATE
Facility ID:	00000029493
Tank Num:	002
Container Num:	#2
Year Installed:	1970
Tank Capacity:	00008000
Facility Type:	Gas Station
Other Type:	Not reported
Total Tanks:	0004
Tank Used for:	PRODUCT
Type of Fuel:	UNLEADED
Tank Construction:	Not reported
Leak Detection:	Stock Inventor
Contact Name:	Not reported

EXXON SERVICE STATION (Continued) **U001562517**

Telephone: 2139805760
Owner Name: EXXON COMPANY U.S.A.
Owner Address: 16945 NORTHCHASE BLVD.
Owner City,St,Zip: HOUSTON, TX 77210

Region: STATE
Facility ID: 00000029493
Tank Num: 003
Container Num: #3
Year Installed: 1970
Tank Capacity: 00010000
Facility Type: Gas Station
Other Type: Not reported
Total Tanks: 0004
Tank Used for: PRODUCT
Type of Fuel: REGULAR
Tank Construction: Not reported
Leak Detection: Stock Inventor
Contact Name: Not reported
Telephone: 2139805760
Owner Name: EXXON COMPANY U.S.A.
Owner Address: 16945 NORTHCHASE BLVD.
Owner City,St,Zip: HOUSTON, TX 77210

Region: STATE
Facility ID: 00000029493
Tank Num: 004
Container Num: #4
Year Installed: 1970
Tank Capacity: 00001000
Facility Type: Gas Station
Other Type: Not reported
Total Tanks: 0004
Tank Used for: WASTE
Type of Fuel: WASTE OIL
Tank Construction: Not reported
Leak Detection: Stock Inventor
Contact Name: Not reported
Telephone: 2139805760
Owner Name: EXXON COMPANY U.S.A.
Owner Address: 16945 NORTHCHASE BLVD.
Owner City,St,Zip: HOUSTON, TX 77210

H49 **DEIRMENDJIAN EXXON STATION** **Cortese** **S101296933**
WSW **3640 CAHUENGA BLVD** **SWEEPS UST** **N/A**
1/2-1 **LOS ANGELES, CA 90028**
2866 ft.

Site 4 of 4 in cluster H

Relative:
Lower

Cortese:
Region: CORTESE
Facility Addr2: 3640 CAHUENGA BLVD

Actual:
619 ft.

SWEEPS UST:
Status: Not reported
Comp Number: 4640
Number: Not reported

DEIRMENDJIAN EXXON STATION (Continued) **S101296933**

Board Of Equalization:	Not reported
Ref Date:	Not reported
Act Date:	Not reported
Created Date:	Not reported
Tank Status:	Not reported
Owner Tank Id:	Not reported
Swrcb Tank Id:	Not reported
Actv Date:	Not reported
Capacity:	Not reported
Tank Use:	Not reported
Stg:	Not reported
Content:	Not reported
Number Of Tanks:	0

I50 **TEXACO OFFICE BUILDING** **LUST** **S103891112**
WNW **10 UNIVERSAL PLAZA** **Cortese** **N/A**
1/2-1 **UNIVERSAL CITY, CA 91604**
3021 ft.

Site 1 of 5 in cluster I

Relative:
Lower

Actual:
571 ft.

LUST:

Region:	STATE	
Case Type:	Other ground water affected	
Cross Street:	Not reported	
Enf Type:	Not reported	
Funding:	Not reported	
How Discovered:	Not reported	
How Stopped:	Not reported	
Leak Cause:	UNK	
Leak Source:	UNK	
Global Id:	T0603702621	
Stop Date:	Not reported	
Confirm Leak:	Not reported	
Workplan:	Not reported	
Prelim Assess:	Not reported	
Pollution Char:	1992-08-10 00:00:00	
Remed Plan:	Not reported	
Remed Action:	Not reported	
Monitoring:	Not reported	
Close Date:	1996-07-17 00:00:00	
Discover Date:	Not reported	
Enforcement Dt:	Not reported	
Release Date:	1992-04-06 00:00:00	
Review Date:	1994-12-02 00:00:00	
Enter Date:	1992-04-07 00:00:00	
MTBE Date:	Not reported	
GW Qualifier:	Not reported	
Soil Qualifier:	Not reported	
Max MTBE GW ppb:	Not reported	
Max MTBE Soil ppb:	Not reported	
County:	19	
Org Name:	Not reported	
Reg Board:	Los Angeles Region	
Status:	Case Closed	
Chemical:	Hydrocarbons	
Contact Person:	Not reported	
Responsible Party:	TEXACO REFINING & MARKETING	
RP Address:	10 UNIVERSAL CITY PLAZA, UNIVERSAL CITY CA 91608	D

TEXACO OFFICE BUILDING (Continued) **S103891112**

Interim: Not reported
Oversight Prgm: LUST
MTBE Class: *
MTBE Conc: 0
MTBE Fuel: 0
MTBE Tested: Not Required to be Tested.
Staff: YR
Staff Initials: PEJ
Lead Agency: Regional Board
Local Agency: 19050
Hydr Basin #: SAN FERNANDO VALLEY
Beneficial: Not reported
Priority: Not reported
Cleanup Fund Id: Not reported
Work Suspended: Not reported
Local Case #: Not reported
Case Number: 916080052
Qty Leaked: Not reported
Abate Method: Not reported
Operator: Not reported
Water System Name: Not reported
Well Name: Not reported
Distance To Lust: 0
Waste Discharge Global ID: Not reported
Waste Disch Assigned Name: Not reported
Summary: Not reported

LUST:
Region: 4
Staff: UNK
County: Los Angeles
Local Agency: 19050
Lead Agency: Regional Board
Case Type: Groundwater
Status: Case Closed
Substance: Hydrocarbons
Cross Street: Not reported
Global ID: T0603702621
Enforcement Type: Not reported
Date Leak Discovered: Not reported
Date Leak Record Entered: 4/7/1992
How Leak Discovered: Not reported
How Leak Stopped: Not reported
Cause of Leak: UNK
Leak Source: UNK
Date Leak Stopped: Not reported
Date Confirmation Began: Not reported
Operator: Not reported
Water System: Not reported
Well Name: Not reported
Approx. Dist To Production Well (ft): 13454.399174300150617172704806
Abatement Method Used at the Site: Not reported
Source of Cleanup Funding: Not reported
Date Leak First Reported: 4/6/1992
Preliminary Site Assessment Workplan Submitted: Not reported
Preliminary Site Assessment Began: Not reported
Pollution Characterization Began: 8/10/1992

TEXACO OFFICE BUILDING (Continued) **S103891112**

Remediation Plan Submitted: Not reported
Remedial Action Underway: Not reported
Post Remedial Action Monitoring Began: Not reported
Date the Case was Closed: 7/17/1996
Date Case Last Changed on Database: 12/2/1994
Enforcement Action Date: Not reported
Historical Max MTBE Date: Not reported
Hist Max MTBE Conc in Groundwater: Not reported
Hist Max MTBE Conc in Soil: Not reported
Significant Interim Remedial Action Taken: Not reported
GW Qualifier: Not reported
Soil Qualifier: Not reported
Organization: Not reported
Regional Board: 04
Owner Contact: Not reported
Responsible Party: TEXACO REFINING & MARKETING
RP Address: 10 UNIVERSAL CITY PLAZA, UNIVERSAL CITY CA 91608
Program: LUST
Lat/Long: 34.1442418 / -1
Local Agency Staff: PEJ
Beneficial Use: Not reported
Priority: Not reported
Cleanup Fund Id: Not reported
Suspended: Not reported
Local Case No: Not reported
Substance Quantity: Not reported
Assigned Name: Not reported
W Global ID: Not reported
Summary: Not reported

Cortese:
Region: CORTESE
Facility Addr2: 10 UNIVERSAL PLAZA

I51 **GETTY PLAZA** **CA FID UST** **S101583347**
WNW **10 UNIVERSAL CITY PLZ** **SWEEPS UST** **N/A**
1/2-1 **UNIVERSAL CITY, CA 91608**
3021 ft.

Site 2 of 5 in cluster I

Relative: Lower

Actual: 571 ft.

CA FID UST:
Facility ID: 19003482
Regulated By: UTNKA
Regulated ID: 00005341
Cortese Code: Not reported
SIC Code: Not reported
Facility Phone: 8182832479
Mail To: Not reported
Mailing Address: 10 UNIVERSAL CITY PLZ
Mailing Address 2: Not reported
Mailing City,St,Zip: UNIVERSAL CITY 916080000
Contact: Not reported
Contact Phone: Not reported
DUNs Number: Not reported
NPDES Number: Not reported
EPA ID: Not reported
Comments: Not reported

GETTY PLAZA (Continued) **S101583347**

Status: Active

SWEEPS UST:
Status: A
Comp Number: 571
Number: 1
Board Of Equalization: 44-011281
Ref Date: 09-28-93
Act Date: 03-15-94
Created Date: 02-29-88
Tank Status: A
Owner Tank Id: Not reported
Swrcb Tank Id: 19-050-000571-000001
Actv Date: 10-06-92
Capacity: 6000
Tank Use: M.V. FUEL
Stg: P
Content: DIESEL
Number Of Tanks: 3

Status: A
Comp Number: 571
Number: 1
Board Of Equalization: 44-011281
Ref Date: 09-28-93
Act Date: 03-15-94
Created Date: 02-29-88
Tank Status: A
Owner Tank Id: Not reported
Swrcb Tank Id: 19-050-000571-000002
Actv Date: 10-06-92
Capacity: 8000
Tank Use: M.V. FUEL
Stg: P
Content: REG UNLEADED
Number Of Tanks: Not reported

Status: A
Comp Number: 571
Number: 1
Board Of Equalization: 44-011281
Ref Date: 09-28-93
Act Date: 03-15-94
Created Date: 02-29-88
Tank Status: A
Owner Tank Id: Not reported
Swrcb Tank Id: 19-050-000571-000003
Actv Date: 10-06-92
Capacity: 8000
Tank Use: M.V. FUEL
Stg: P
Content: REG UNLEADED
Number Of Tanks: Not reported

I52
WNW
1/2-1
3021 ft.

Relative:
Lower

Actual:
571 ft.

TEXACO
10 UNIVERSAL CITY PLAZA
UNIVERSAL CITY, CA 91608

RCRA-SQG
FINDS

1000144854
CAD981692007

Site 3 of 5 in cluster I

RCRAInfo:
Owner: TEXACO INC
(415) 555-1212
EPA ID: CAD981692007

Contact: ENVIRONMENTAL MANAGER
(818) 505-2301

Classification: Small Quantity Generator
TSDF Activities: Not reported

Violation Status: No violations found

FINDS:
Other Pertinent Environmental Activity Identified at Site

The NEI (National Emissions Inventory) database contains information on stationary and mobile sources that emit criteria air pollutants and their precursors, as well as hazardous air pollutants (HAPs).

RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

I53
WNW
1/2-1
3021 ft.

Relative:
Lower

Actual:
571 ft.

10 UNIVERSAL CITY PLAZA
3838 LANKERSHIM BLVD
UNIVERSAL CITY, CA 91608

LUST

S105051293
N/A

Site 4 of 5 in cluster I

LUST:
Region: STATE
Case Type: Soil only
Cross Street: UNIVERSAL TERRACE PKWY
Enf Type: Not reported
Funding: Not reported
How Discovered: OM
How Stopped: Not reported
Leak Cause: Corrosion
Leak Source: Piping
Global Id: T0603702622
Stop Date: 1991-01-28 00:00:00
Confirm Leak: 1991-01-18 00:00:00
Workplan: Not reported
Prelim Assess: Not reported
Pollution Char: Not reported
Remed Plan: Not reported
Remed Action: Not reported

10 UNIVERSAL CITY PLAZA (Continued) **S105051293**

Monitoring: Not reported
Close Date: Not reported
Discover Date: 1991-01-18 00:00:00
Enforcement Dt: Not reported
Release Date: 1991-01-18 00:00:00
Review Date: 1994-10-25 00:00:00
Enter Date: 1996-03-25 00:00:00
MTBE Date: Not reported
GW Qualifier: Not reported
Soil Qualifier: Not reported
Max MTBE GW ppb: Not reported
Max MTBE Soil ppb: Not reported
County: 19
Org Name: Not reported
Reg Board: Los Angeles Region
Status: Leak being confirmed
Chemical: Diesel
Contact Person: Not reported
Responsible Party: 10 UCP ASSOCIATES
RP Address: 3838 LANKERSHIM BLVD, LOS ANGELES CA 91608
Interim: Not reported
Oversight Prgm: LUST
MTBE Class: *
MTBE Conc: 0
MTBE Fuel: 0
MTBE Tested: Not Required to be Tested.
Staff: YR
Staff Initials: EL
Lead Agency: Local Agency
Local Agency: 19050
Hydr Basin #: UNNAMED BASIN
Beneficial: Not reported
Priority: Not reported
Cleanup Fund Id: Not reported
Work Suspended: Not reported
Local Case #: Not reported
Case Number: 916080061
Qty Leaked: Not reported
Abate Method: Not reported
Operator: OLD CASE #941025-01
Water System Name: Not reported
Well Name: Not reported
Distance To Lust: 0
Waste Discharge Global ID: Not reported
Waste Disch Assigned Name: Not reported
Summary: Not reported

LUST:
Region: 4
Staff: UNK
County: Los Angeles
Local Agency: 19050
Lead Agency: Local Agency
Case Type: Soil
Status: Leak being confirmed
Substance: Diesel
Cross Street: UNIVERSAL TERRACE PKWY

10 UNIVERSAL CITY PLAZA (Continued) **S105051293**

Global ID:	T0603702622	
Enforcement Type:	Not reported	
Date Leak Discovered:	1/18/1991	
Date Leak Record Entered:	3/25/1996	
How Leak Discovered:	OM	
How Leak Stopped:	Not reported	
Cause of Leak:	Corrosion	
Leak Source:	Piping	
Date Leak Stopped:	1/28/1991	
Date Confirmation Began:	1/18/1991	
Operator:	OLD CASE #941025-01	
Water System:	Not reported	
Well Name:	Not reported	
Approx. Dist To Production Well (ft):		7727.8909530304363055725121645
Abatement Method Used at the Site:		Not reported
Source of Cleanup Funding:		Not reported
Date Leak First Reported:		1/18/1991
Preliminary Site Assessment Workplan Submitted:		Not reported
Preliminary Site Assessment Began:		Not reported
Pollution Characterization Began:		Not reported
Remediation Plan Submitted:		Not reported
Remedial Action Underway:		Not reported
Post Remedial Action Monitoring Began:		Not reported
Date the Case was Closed:		Not reported
Date Case Last Changed on Database:		10/25/1994
Enforcement Action Date:		Not reported
Historical Max MTBE Date:		Not reported
Hist Max MTBE Conc in Groundwater:		Not reported
Hist Max MTBE Conc in Soil:		Not reported
Significant Interim Remedial Action Taken:		Not reported
GW Qualifier:	Not reported	
Soil Qualifier:	Not reported	
Organization:	Not reported	
Regional Board:	04	
Owner Contact:	Not reported	
Responsible Party:	10 UCP ASSOCIATES	
RP Address:	3838 LANKERSHIM BLVD, LOS ANGELES CA 91608	
Program:	LUST	
Lat/Long:	34.1380153 / -1	
Local Agency Staff:	PEJ	
Beneficial Use:	Not reported	
Priority:	Not reported	
Cleanup Fund Id:	Not reported	
Suspended:	Not reported	
Local Case No:	Not reported	
Substance Quantity:	Not reported	
Assigned Name:	Not reported	
W Global ID:	Not reported	
Summary:	Not reported	

54
NNE
1/2-1
3047 ft.

Relative:
Lower

Actual:
542 ft.

LAKESIDE GOLF CLUB OF HOLLYWOOD
4201 CLYBOURN AVE
LOS ANGELES, CA 91602

CA FID UST
SWEEPS UST

S101587510
N/A

CA FID UST:

Facility ID:	19055708
Regulated By:	UTNKA
Regulated ID:	Not reported
Cortese Code:	Not reported
SIC Code:	Not reported
Facility Phone:	2130000000
Mail To:	Not reported
Mailing Address:	4201 CLYBOURN AVE
Mailing Address 2:	Not reported
Mailing City,St,Zip:	LOS ANGELES 916020000
Contact:	Not reported
Contact Phone:	Not reported
DUNs Number:	Not reported
NPDES Number:	Not reported
EPA ID:	Not reported
Comments:	Not reported
Status:	Active

SWEEPS UST:

Status:	Not reported
Comp Number:	4177
Number:	Not reported
Board Of Equalization:	Not reported
Ref Date:	Not reported
Act Date:	Not reported
Created Date:	Not reported
Tank Status:	Not reported
Owner Tank Id:	Not reported
Swrcb Tank Id:	Not reported
Actv Date:	Not reported
Capacity:	Not reported
Tank Use:	Not reported
Stg:	Not reported
Content:	Not reported
Number Of Tanks:	0

G55
South
1/2-1
3083 ft.

Site 2 of 2 in cluster G

Relative:
Lower

Actual:
708 ft.

EASTABROOK PHOTOGRAPHY
3281 OAKSHIRE DR
HOLLYWOOD, CA 90068

RCRA-SQG
FINDS

1000395490
CAD052397239

EASTABROOK PHOTOGRAPHY (Continued) **1000395490**

RCRAInfo:
Owner: EASTABROOK WM
(415) 555-1212
EPA ID: CAD052397239
Contact: ENVIRONMENTAL MANAGER
(213) 851-3281
Classification: Small Quantity Generator
TSDF Activities: Not reported

Violation Status: No violations found

FINDS:
Other Pertinent Environmental Activity Identified at Site

RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

J56 **ARCO #6143** **HAZNET** **S103655815**
WSW **3704 CAHUENGA** **Cortese** **N/A**
1/2-1 **NORTH HOLLYWOOD, CA 91604**
3147 ft.

Site 1 of 8 in cluster J

Relative: Lower

Actual: 619 ft.

HAZNET:
Gepaid: CAL000016343
Contact: ATLANTIC RICHFIELD COMPANY
Telephone: 2134860494
Facility Addr2: Not reported
Mailing Name: Not reported
Mailing Address: PO BOX 6038
Mailing City,St,Zip: ARTESIA, CA 907026038
Gen County: Los Angeles
TSD EPA ID: CAT080013352
TSD County: Los Angeles
Waste Category: Aqueous solution with less than 10% total organic residues
Disposal Method: Recycler
Tons: .2085
Facility County: Los Angeles

Gepaid: CAL000016343
Contact: ATLANTIC RICHFIELD COMPANY
Telephone: 2134860494
Facility Addr2: Not reported
Mailing Name: Not reported
Mailing Address: PO BOX 6038
Mailing City,St,Zip: ARTESIA, CA 907026038
Gen County: Los Angeles
TSD EPA ID: CAT080013352
TSD County: Los Angeles

ARCO #6143 (Continued) **S103655815**

Waste Category: Aqueous solution with less than 10% total organic residues
Disposal Method: Recycler
Tons: .1668
Facility County: Los Angeles

Gepaid: CAL000016343
Contact: ATLANTIC RICHFIELD COMPANY
Telephone: 2134860494
Facility Addr2: Not reported
Mailing Name: Not reported
Mailing Address: PO BOX 6038
Mailing City,St,Zip: ARTESIA, CA 907026038
Gen County: Los Angeles
TSD EPA ID: WAD009477175
TSD County: 99
Waste Category: Other organic solids
Disposal Method: Recycler
Tons: .1000
Facility County: Los Angeles

Gepaid: CAL000016343
Contact: CARLOS RODRIGUEZ/ENV COMPL ADM
Telephone: 7146705402
Facility Addr2: Not reported
Mailing Name: Not reported
Mailing Address: PO BOX 6038
Mailing City,St,Zip: ARTESIA, CA 907026038
Gen County: Los Angeles
TSD EPA ID: Not reported
TSD County: Los Angeles
Waste Category: Aqueous solution with less than 10% total organic residues
Disposal Method: Recycler
Tons: 10.11
Facility County: Not reported

Gepaid: CAL000016343
Contact: ATLANTIC RICHFIELD COMPANY
Telephone: 2134860494
Facility Addr2: Not reported
Mailing Name: Not reported
Mailing Address: PO BOX 6038
Mailing City,St,Zip: ARTESIA, CA 907026038
Gen County: Los Angeles
TSD EPA ID: CAT080013352
TSD County: Los Angeles
Waste Category: Aqueous solution with less than 10% total organic residues
Disposal Method: Not reported
Tons: .1042
Facility County: Los Angeles

Click this hyperlink while viewing on your computer to access
3 additional CA_HAZNET: record(s) in the EDR Site Report.

Cortese:
Region: CORTESE
Facility Addr2: Not reported

J57 **ARCO PRODUCTS COMPANY--#6143** **UST** **U003938204**
WSW **3704 CAHUENGA BLVD** **N/A**
1/2-1 **STUDIO CITY, CA 91604**
3147 ft.

Site 2 of 8 in cluster J

Relative:
Lower

UST:
Region: STATE
Actual: Local Agency: Los Angeles, Los Angeles County
619 ft. Facility ID: 25170

J58 **JIRAIR G BEZIKIAN** **HIST UST** **U001568512**
WSW **3704 CAHUENGA BLVD** **N/A**
1/2-1 **NORTH HOLLYWOOD, CA 91604**
3147 ft.

Site 3 of 8 in cluster J

Relative:
Lower

HIST UST:
Region: STATE
Actual: Facility ID: 00000026865
619 ft. Tank Num: 001
Container Num: 0000000001
Year Installed: 1982
Tank Capacity: 00006000
Facility Type: Gas Station
Other Type: Not reported
Total Tanks: 0004
Tank Used for: PRODUCT
Type of Fuel: 06
Tank Construction: 0000240 inches
Leak Detection: Stock Inventor, 10
Contact Name: Not reported
Telephone: 0000000000
Owner Name: ARCO PETROLEUM PRODUCTS CO.
Owner Address: 515 SOUTH FLOWER STREET
Owner City,St,Zip: LOS ANGELES, CA 90071

Region: STATE
Facility ID: 00000026865
Tank Num: 002
Container Num: 0000000002
Year Installed: 1982
Tank Capacity: 00008000
Facility Type: Gas Station
Other Type: Not reported
Total Tanks: 0004
Tank Used for: PRODUCT
Type of Fuel: 06
Tank Construction: 0000240 inches
Leak Detection: Stock Inventor, 10
Contact Name: Not reported
Telephone: 0000000000
Owner Name: ARCO PETROLEUM PRODUCTS CO.
Owner Address: 515 SOUTH FLOWER STREET
Owner City,St,Zip: LOS ANGELES, CA 90071

Region: STATE
Facility ID: 00000026865
Tank Num: 003
Container Num: 0000000003

JIRAIR G BEZIKIAN (Continued) **U001568512**

Year Installed:	1983
Tank Capacity:	00012000
Facility Type:	Gas Station
Other Type:	Not reported
Total Tanks:	0004
Tank Used for:	PRODUCT
Type of Fuel:	06
Tank Construction:	Not reported
Leak Detection:	Stock Inventor, 10
Contact Name:	Not reported
Telephone:	0000000000
Owner Name:	ARCO PETROLEUM PRODUCTS CO.
Owner Address:	515 SOUTH FLOWER STREET
Owner City,St,Zip:	LOS ANGELES, CA 90071

Region:	STATE
Facility ID:	00000026865
Tank Num:	004
Container Num:	0000000004
Year Installed:	Not reported
Tank Capacity:	00000000
Facility Type:	Gas Station
Other Type:	Not reported
Total Tanks:	0004
Tank Used for:	Not reported
Type of Fuel:	Not reported
Tank Construction:	Not reported
Leak Detection:	Stock Inventor, 10
Contact Name:	Not reported
Telephone:	0000000000
Owner Name:	ARCO PETROLEUM PRODUCTS CO.
Owner Address:	515 SOUTH FLOWER STREET
Owner City,St,Zip:	LOS ANGELES, CA 90071

J59 **ARCO #6143** **LUST** **S101297609**
WSW **3704 CAHUENGA BLVD** **N/A**
1/2-1 **STUDIO CITY, CA 91604**
3147 ft.

Site 4 of 8 in cluster J

Relative:
Lower

Actual:
619 ft.

LUST:

Region:	STATE
Case Type:	Other ground water affected
Cross Street:	REGAL
Enf Type:	Not reported
Funding:	Not reported
How Discovered:	OM
How Stopped:	Not reported
Leak Cause:	UNK
Leak Source:	UNK
Global Id:	T0603702571
Stop Date:	Not reported
Confirm Leak:	Not reported
Workplan:	Not reported
Prelim Assess:	1992-04-24 00:00:00
Pollution Char:	Not reported
Remed Plan:	Not reported
Remed Action:	Not reported

ARCO #6143 (Continued) **S101297609**

Monitoring: Not reported
Close Date: 1996-07-24 00:00:00
Discover Date: 1992-04-23 00:00:00
Enforcement Dt: Not reported
Release Date: 1992-04-24 00:00:00
Review Date: 1996-12-17 00:00:00
Enter Date: 1992-05-25 00:00:00
MTBE Date: Not reported
GW Qualifier: Not reported
Soil Qualifier: Not reported
Max MTBE GW ppb: Not reported
Max MTBE Soil ppb: Not reported
County: 19
Org Name: Not reported
Reg Board: Los Angeles Region
Status: Case Closed
Chemical: Gasoline
Contact Person: Not reported
Responsible Party: ARCO PRODUCTS CO.
RP Address: 17315 STUDEBAKER RD, CERRITOS, 90701 D
Interim: Not reported
Oversight Prgm: LUST
MTBE Class: *
MTBE Conc: 0
MTBE Fuel: 1
MTBE Tested: Site NOT Tested for MTBE.Includes Unknown and Not Analyzed.
Staff: YR
Staff Initials: PEJ
Lead Agency: Regional Board
Local Agency: 19050
Hydr Basin #: UNNAMED BASIN
Beneficial: Not reported
Priority: Not reported
Cleanup Fund Id: Not reported
Work Suspended: Not reported
Local Case #: Not reported
Case Number: 916040416
Qty Leaked: Not reported
Abate Method: Not reported
Operator: JERRY'S DAY & NIGHT INC.
Water System Name: Not reported
Well Name: Not reported
Distance To Lust: 0
Waste Discharge Global ID: Not reported
Waste Disch Assigned Name: Not reported
Summary: OLD CASE #23102

LUST:
Region: 4
Staff: UNK
County: Los Angeles
Local Agency: 19050
Lead Agency: Regional Board
Case Type: Groundwater
Status: Case Closed
Substance: Gasoline
Cross Street: REGAL

ARCO #6143 (Continued) **S101297609**

Global ID:	T0603702571
Enforcement Type:	Not reported
Date Leak Discovered:	4/23/1992
Date Leak Record Entered:	5/25/1992
How Leak Discovered:	OM
How Leak Stopped:	Not reported
Cause of Leak:	UNK
Leak Source:	UNK
Date Leak Stopped:	Not reported
Date Confirmation Began:	Not reported
Operator:	JERRY'S DAY & NIGHT INC.
Water System:	Not reported
Well Name:	Not reported
Approx. Dist To Production Well (ft):	8489.126824703116069792731239
Abatement Method Used at the Site:	Not reported
Source of Cleanup Funding:	Not reported
Date Leak First Reported:	4/24/1992
Preliminary Site Assessment Workplan Submitted:	Not reported
Preliminary Site Assessment Began:	4/24/1992
Pollution Characterization Began:	Not reported
Remediation Plan Submitted:	Not reported
Remedial Action Underway:	Not reported
Post Remedial Action Monitoring Began:	Not reported
Date the Case was Closed:	7/24/1996
Date Case Last Changed on Database:	12/17/1996
Enforcement Action Date:	Not reported
Historical Max MTBE Date:	Not reported
Hist Max MTBE Conc in Groundwater:	Not reported
Hist Max MTBE Conc in Soil:	Not reported
Significant Interim Remedial Action Taken:	Not reported
GW Qualifier:	Not reported
Soil Qualifier:	Not reported
Organization:	Not reported
Regional Board:	04
Owner Contact:	Not reported
Responsible Party:	ARCO PRODUCTS CO.
RP Address:	17315 STUDEBAKER RD, CERRITOS, 90701
Program:	LUST
Lat/Long:	34.1351064 / -1
Local Agency Staff:	PEJ
Beneficial Use:	Not reported
Priority:	Not reported
Cleanup Fund Id:	Not reported
Suspended:	Not reported
Local Case No:	Not reported
Substance Quantity:	Not reported
Assigned Name:	Not reported
W Global ID:	Not reported
Summary:	OLD CASE #23102

J60
WSW
1/2-1
3147 ft.

ARCO #6143
3704 CAHUENGA BLVD.
NORTH HOLLYWOOD, CA 91604

LUST
CA FID UST

S101583374
N/A

Site 5 of 8 in cluster J

Relative:
Lower

Actual:
619 ft.

LUST:

Region:	STATE
Case Type:	Other ground water affected
Cross Street:	REGAL
Enf Type:	CLOS
Funding:	Not reported
How Discovered:	OM
How Stopped:	NPP
Leak Cause:	UNK
Leak Source:	Piping
Global Id:	T0603791973
Stop Date:	2001-01-04 00:00:00
Confirm Leak:	Not reported
Workplan:	Not reported
Prelim Assess:	2003-01-13 00:00:00
Pollution Char:	2003-09-16 00:00:00
Remed Plan:	Not reported
Remed Action:	Not reported
Monitoring:	Not reported
Close Date:	2005-01-20 00:00:00
Discover Date:	2001-01-04 00:00:00
Enforcement Dt:	Not reported
Release Date:	2001-01-09 00:00:00
Review Date:	Not reported
Enter Date:	Not reported
MTBE Date:	Not reported
GW Qualifier:	Not reported
Soil Qualifier:	Not reported
Max MTBE GW ppb:	Not reported
Max MTBE Soil ppb:	Not reported
County:	19
Org Name:	Not reported
Reg Board:	Los Angeles Region
Status:	Case Closed
Chemical:	Gasoline
Contact Person:	Not reported
Responsible Party:	ROY THUN
RP Address:	4 CENTERPOINTE DR., RM 176
Interim:	Not reported
Oversight Prgm:	LUST
MTBE Class:	*
MTBE Conc:	0
MTBE Fuel:	1
MTBE Tested:	MTBE Detected. Site tested for MTBE and MTBE detected
Staff:	AT
Staff Initials:	Not reported
Lead Agency:	Regional Board
Local Agency:	19050
Hydr Basin #:	Not reported
Beneficial:	Not reported
Priority:	Not reported
Cleanup Fund Id:	Not reported
Work Suspended:	Not reported

ARCO #6143 (Continued) **S101583374**

Local Case #: Not reported
Case Number: 916040416A
Qty Leaked: Not reported
Abate Method: Not reported
Operator: Not reported
Water System Name: Not reported
Well Name: Not reported
Distance To Lust: 0
Waste Discharge Global ID: Not reported
Waste Disch Assigned Name: Not reported
Summary: Not reported

LUST:
Region: 4
Staff: AT
County: Los Angeles
Local Agency: 19050
Lead Agency: Regional Board
Case Type: Groundwater
Status: Pollution Characterization
Substance: Gasoline
Cross Street: REGAL
Global ID: T0603791973
Enforcement Type: DLSEL
Date Leak Discovered: 1/4/2001
Date Leak Record Entered: Not reported
How Leak Discovered: OM
How Leak Stopped: NPP
Cause of Leak: UNK
Leak Source: Piping
Date Leak Stopped: 1/4/2001
Date Confirmation Began: Not reported
Operator: Not reported
Water System: Not reported
Well Name: Not reported
Approx. Dist To Production Well (ft): Not reported
Abatement Method Used at the Site: Not reported
Source of Cleanup Funding: Not reported
Date Leak First Reported: 1/9/2001
Preliminary Site Assessment Workplan Submitted: Not reported
Preliminary Site Assessment Began: 1/13/2003
Pollution Characterization Began: 9/16/2003
Remediation Plan Submitted: Not reported
Remedial Action Underway: Not reported
Post Remedial Action Monitoring Began: Not reported
Date the Case was Closed: Not reported
Date Case Last Changed on Database: Not reported
Enforcement Action Date: Not reported
Historical Max MTBE Date: 12/3/2003
Hist Max MTBE Conc in Groundwater: 36
Hist Max MTBE Conc in Soil: 4.9
Significant Interim Remedial Action Taken: Not reported
GW Qualifier: =
Soil Qualifier: =
Organization: Not reported
Regional Board: 04
Owner Contact: Not reported

ARCO #6143 (Continued) **S101583374**

Responsible Party: ROY THUN
RP Address: 4 CENTERPOINTE DR., RM 176
Program: LUST
Lat/Long: 0 / 0
Local Agency Staff: Not reported
Beneficial Use: Not reported
Priority: Not reported
Cleanup Fund Id: Not reported
Suspended: Not reported
Local Case No: Not reported
Substance Quantity: Not reported
Assigned Name: Not reported
W Global ID: Not reported
Summary: Not reported

CA FID UST:
Facility ID: 19003552
Regulated By: UTNKA
Regulated ID: 00026865
Cortese Code: Not reported
SIC Code: Not reported
Facility Phone: 8189856842
Mail To: Not reported
Mailing Address: 515 S FLOWER ST
Mailing Address 2: Not reported
Mailing City,St,Zip: NORTH HOLLYWOOD 916040000
Contact: Not reported
Contact Phone: Not reported
DUNs Number: Not reported
NPDES Number: Not reported
EPA ID: Not reported
Comments: Not reported
Status: Active

J61 **ARCO PRODUCTS COMPANY** **SWEEPS UST** **S106922827**
WSW **3704 N CAHUENGA BLVD** **N/A**
1/2-1 **NORTH HOLLYWOOD, CA 91604**
3147 ft.

Site 6 of 8 in cluster J

Relative: Lower

Actual: 619 ft.

SWEEPS UST:
Status: Not reported
Comp Number: 1638
Number: Not reported
Board Of Equalization: 44-000506
Ref Date: Not reported
Act Date: Not reported
Created Date: Not reported
Tank Status: Not reported
Owner Tank Id: Not reported
Swrcb Tank Id: 19-050-001638-000001
Actv Date: Not reported
Capacity: 10000
Tank Use: M.V. FUEL
Stg: PRODUCT
Content: PRM UNLEADED
Number Of Tanks: 4

ARCO PRODUCTS COMPANY (Continued) **S106922827**

Status:	Not reported
Comp Number:	1638
Number:	Not reported
Board Of Equalization:	44-000506
Ref Date:	Not reported
Act Date:	Not reported
Created Date:	Not reported
Tank Status:	Not reported
Owner Tank Id:	Not reported
Swrcb Tank Id:	19-050-001638-000002
Actv Date:	Not reported
Capacity:	10000
Tank Use:	M.V. FUEL
Stg:	PRODUCT
Content:	REG UNLEADED
Number Of Tanks:	Not reported

Status:	Not reported
Comp Number:	1638
Number:	Not reported
Board Of Equalization:	44-000506
Ref Date:	Not reported
Act Date:	Not reported
Created Date:	Not reported
Tank Status:	Not reported
Owner Tank Id:	Not reported
Swrcb Tank Id:	19-050-001638-000003
Actv Date:	Not reported
Capacity:	10000
Tank Use:	M.V. FUEL
Stg:	PRODUCT
Content:	REG UNLEADED
Number Of Tanks:	Not reported

Status:	Not reported
Comp Number:	1638
Number:	Not reported
Board Of Equalization:	44-000506
Ref Date:	Not reported
Act Date:	Not reported
Created Date:	Not reported
Tank Status:	Not reported
Owner Tank Id:	Not reported
Swrcb Tank Id:	19-050-001638-000004
Actv Date:	Not reported
Capacity:	10000
Tank Use:	M.V. FUEL
Stg:	PRODUCT
Content:	REG UNLEADED
Number Of Tanks:	Not reported

Status:	A
Comp Number:	1638
Number:	1
Board Of Equalization:	44-000506
Ref Date:	03-05-93
Act Date:	04-25-94

ARCO PRODUCTS COMPANY (Continued) **S106922827**

Created Date:	02-29-88
Tank Status:	Not reported
Owner Tank Id:	Not reported
Swrcb Tank Id:	Not reported
Actv Date:	Not reported
Capacity:	Not reported
Tank Use:	Not reported
Stg:	Not reported
Content:	Not reported
Number Of Tanks:	Not reported

J62 **COMPUTOR COLOR CORP** **RCRA-SQG** **1000350342**
WSW **3711 CAHUENGA BLVD** **FINDS** **CAD982467151**
1/2-1 **STUDIO CITY, CA 91604**
3171 ft.

Site 7 of 8 in cluster J

Relative:
Lower

Actual:
618 ft.

RCRAInfo:

Owner:	HOLLANDER JERRY
	(415) 555-1212
EPA ID:	CAD982467151
Contact:	ENVIRONMENTAL MANAGER
	(213) 877-2636
Classification:	Small Quantity Generator
TSDF Activities:	Not reported

Violation Status: No violations found

FINDS:

Other Pertinent Environmental Activity Identified at Site

RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

I63 **HOWARD A ANDERSON CO** **RCRA-SQG** **1000154938**
WNW **4050 LANKERSHIM BLVD 504-3** **FINDS** **CAD982503070**
1/2-1 **UNIVERSAL CITY, CA 91608**
3171 ft.

Site 5 of 5 in cluster I

Relative:
Lower

Actual:
566 ft.

HOWARD A ANDERSON CO (Continued) **1000154938**

RCRAInfo:
Owner: HOWARD A ANDERSON CO
(415) 555-1212
EPA ID: CAD982503070

Contact: Not reported

Classification: Small Quantity Generator
TSDF Activities: Not reported

Violation Status: No violations found

FINDS:
Other Pertinent Environmental Activity Identified at Site

RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

J64 **BOINK SCREENERS** **RCRA-SQG** **1000819564**
WSW **3717 CAHUENGA BLVD W** **FINDS** **CAD983655556**
1/2-1 **STUDIO CITY, CA 91604**
3195 ft.

Site 8 of 8 in cluster J

Relative:
Lower

Actual:
615 ft.

RCRAInfo:
Owner: TRICIA SHERWOOD
(818) 762-4208
EPA ID: CAD983655556

Contact: TRICIA SHERWOOD
(818) 762-4208

Classification: Small Quantity Generator
TSDF Activities: Not reported

Violation Status: No violations found

FINDS:
Other Pertinent Environmental Activity Identified at Site

RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

K65
West
1/2-1
3202 ft.

Relative:
Lower

Actual:
583 ft.

BUDGET RENT A CAR
3885 LANKERSHIM BLVD
NORTH HOLLYWOOD, CA 91604

Site 1 of 2 in cluster K

CA FID UST **S101587908**
SWEEPS UST **N/A**

CA FID UST:

Facility ID:	19056133
Regulated By:	UTNKA
Regulated ID:	Not reported
Cortese Code:	Not reported
SIC Code:	Not reported
Facility Phone:	8189893391
Mail To:	Not reported
Mailing Address:	5651 SEPULVEDA BLVD
Mailing Address 2:	Not reported
Mailing City,St,Zip:	NORTH HOLLYWOOD 916040000
Contact:	Not reported
Contact Phone:	Not reported
DUNs Number:	Not reported
NPDES Number:	Not reported
EPA ID:	Not reported
Comments:	Not reported
Status:	Active

SWEEPS UST:

Status:	A
Comp Number:	5809
Number:	1
Board Of Equalization:	Not reported
Ref Date:	03-03-93
Act Date:	03-03-93
Created Date:	02-29-88
Tank Status:	Not reported
Owner Tank Id:	Not reported
Swrcb Tank Id:	Not reported
Actv Date:	Not reported
Capacity:	Not reported
Tank Use:	Not reported
Stg:	Not reported
Content:	Not reported
Number Of Tanks:	Not reported

L66
SSE
1/2-1
3201 ft.

Relative:
Lower

Actual:
708 ft.

TRIM CLEANERS OF HOLLYWOOD
3270 CAHUENGA BLVD WEST
LOS ANGELES, CA 90068

Site 1 of 2 in cluster L

RCRA-SQG **1000294063**
FINDS **CAD981965320**
HAZNET
CLEANERS

TRIM CLEANERS OF HOLLYWOOD (Continued) **1000294063**

RCRAInfo:
Owner: NOT REQUIRED
(415) 555-1212
EPA ID: CAD981965320

Contact: Not reported

Classification: Small Quantity Generator
TSDF Activities: Not reported

Violation Status: No violations found

FINDS:
Other Pertinent Environmental Activity Identified at Site

California - Hazardous Waste Tracking System - Datamart

RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

HAZNET:

Gepaid:	CAD981965320
Contact:	DONG RHEW
Telephone:	3238513974
Facility Addr2:	Not reported
Mailing Name:	Not reported
Mailing Address:	3270 CAHUENGA BLVD W
Mailing City,St,Zip:	LOS ANGELES, CA 900680000
Gen County:	Los Angeles
TSD EPA ID:	AZ0009015389
TSD County:	Not reported
Waste Category:	Liquids with halogenated organic compounds > 1000 mg/l
Disposal Method:	Not reported
Tons:	0.18
Facility County:	Not reported

Gepaid:	CAD981965320
Contact:	DONG RHEW
Telephone:	3238513974
Facility Addr2:	Not reported
Mailing Name:	Not reported
Mailing Address:	3270 CAHUENGA BLVD W
Mailing City,St,Zip:	LOS ANGELES, CA 900680000
Gen County:	Los Angeles
TSD EPA ID:	Not reported
TSD County:	Sacramento
Waste Category:	Liquids with halogenated organic compounds > 1000 mg/l
Disposal Method:	Disposal, Other
Tons:	0.22

TRIM CLEANERS OF HOLLYWOOD (Continued) **1000294063**

Facility County: Not reported

Gepaid: CAD981965320
Contact: TRIM CLEANERS OF HOLLYWOOD
Telephone: 0000000000
Facility Addr2: Not reported
Mailing Name: Not reported
Mailing Address: 3270 CAHUENGA BLVD W
Mailing City,St,Zip: LOS ANGELES, CA 900680000
Gen County: Los Angeles
TSD EPA ID: CAD981397417
TSD County: Los Angeles
Waste Category: Halogenated solvents (chloroform, methyl chloride, perchloroethylene, etc.)
Disposal Method: Recycler
Tons: .2107
Facility County: Los Angeles

CLEANERS:
EPA Id: CAD981965320
NAICS Code: 81232
NAICS Description: Drycleaning and Laundry Services (except Coin-Operated)
SIC Code: 7211
SIC Description: Power Laundries, Family and Commercial
Create Date: 07/03/1987
Facility Active: Yes
Inactive Date: Not reported
Facility Addr2: Not reported
Mailing Name: Not reported
Mailing Address: 3270 CAHUENGA BLVD W
Mailing Address 2: Not reported
Mailing State: CA
Mailing Zip: 900680000
Region Code: 3
Owner Name: DONG W RHEW
Owner Address: 11440 YOLANDA AV
Owner Address 2: Not reported
Owner Telephone: 8183683647
Contact Name: DONG RHEW
Contact Address: 3270 CAHUENGA BLVD W
Contact Address 2: Not reported
Contact Telephone: 3238513974

EPA Id: CAD981965320
NAICS Code: 81232
NAICS Description: Drycleaning and Laundry Services (except Coin-Operated)
SIC Code: 7212
SIC Description: Garment Pressing, and Agents for Laundries and Drycleaners
Create Date: 07/03/1987
Facility Active: Yes
Inactive Date: Not reported
Facility Addr2: Not reported
Mailing Name: Not reported
Mailing Address: 3270 CAHUENGA BLVD W
Mailing Address 2: Not reported
Mailing State: CA
Mailing Zip: 900680000

TRIM CLEANERS OF HOLLYWOOD (Continued) **1000294063**

Region Code: 3
Owner Name: DONG W RHEW
Owner Address: 11440 YOLANDA AV
Owner Address 2: Not reported
Owner Telephone: 8183683647
Contact Name: DONG RHEW
Contact Address: 3270 CAHUENGA BLVD W
Contact Address 2: Not reported
Contact Telephone: 3238513974

EPA Id: CAD981965320
NAICS Code: 81232
NAICS Description: Drycleaning and Laundry Services (except Coin-Operated)
SIC Code: 7216
SIC Description: Drycleaning Plants, Except Rug Cleaning
Create Date: 07/03/1987
Facility Active: Yes
Inactive Date: Not reported
Facility Addr2: Not reported
Mailing Name: Not reported
Mailing Address: 3270 CAHUENGA BLVD W
Mailing Address 2: Not reported
Mailing State: CA
Mailing Zip: 900680000
Region Code: 3
Owner Name: DONG W RHEW
Owner Address: 11440 YOLANDA AV
Owner Address 2: Not reported
Owner Telephone: 8183683647
Contact Name: DONG RHEW
Contact Address: 3270 CAHUENGA BLVD W
Contact Address 2: Not reported
Contact Telephone: 3238513974

EPA Id: CAD981965320
NAICS Code: 81232
NAICS Description: Drycleaning and Laundry Services (except Coin-Operated)
SIC Code: 7219
SIC Description: Laundry and Garment Services, NEC (except diaper service and clothing alteration and repair)
Create Date: 07/03/1987
Facility Active: Yes
Inactive Date: Not reported
Facility Addr2: Not reported
Mailing Name: Not reported
Mailing Address: 3270 CAHUENGA BLVD W
Mailing Address 2: Not reported
Mailing State: CA
Mailing Zip: 900680000
Region Code: 3
Owner Name: DONG W RHEW
Owner Address: 11440 YOLANDA AV
Owner Address 2: Not reported
Owner Telephone: 8183683647
Contact Name: DONG RHEW
Contact Address: 3270 CAHUENGA BLVD W
Contact Address 2: Not reported
Contact Telephone: 3238513974

L67
SSE
1/2-1
3207 ft.

Relative:
Lower

Actual:
709 ft.

TRIM CLEANERS
3270 CAHUEMENSA BLVD
HOLLYWOOD, CA 90068

Site 2 of 2 in cluster L

CLEANERS **S106661880**
N/A

CLEANERS:

EPA Id:	CAX000125948
NAICS Code:	Not reported
NAICS Description:	Not reported
SIC Code:	Not reported
SIC Description:	Not reported
Create Date:	11/15/1984
Facility Active:	No
Inactive Date:	6/30/1998
Facility Addr2:	Not reported
Mailing Name:	Not reported
Mailing Address:	--
Mailing Address 2:	Not reported
Mailing State:	CA
Mailing Zip:	900680000
Region Code:	3
Owner Name:	--
Owner Address:	--
Owner Address 2:	Not reported
Owner Telephone:	0000000000
Contact Name:	DON RHEW
Contact Address:	INACT PER 98VQ FINAL NOTICE
Contact Address 2:	- BATCH 4/27
Contact Telephone:	2138513974

K68
West
1/2-1
3265 ft.

Relative:
Lower

Actual:
587 ft.

BLACK FALCON LTD
3855 LANKERSHIM BLVD
NORTH HOLLYWOOD, CA 91806

Site 2 of 2 in cluster K

CA FID UST **S101584036**
SWEEPS UST **N/A**

CA FID UST:

Facility ID:	19008020
Regulated By:	UTNKA
Regulated ID:	Not reported
Cortese Code:	Not reported
SIC Code:	Not reported
Facility Phone:	8187606507
Mail To:	Not reported
Mailing Address:	3855 LANKERSHIM BLVD
Mailing Address 2:	Not reported
Mailing City,St,Zip:	NORTH HOLLYWOOD 918060000
Contact:	Not reported
Contact Phone:	Not reported
DUNs Number:	Not reported
NPDES Number:	Not reported
EPA ID:	Not reported
Comments:	Not reported
Status:	Active

SWEEPS UST:

Status:	Not reported
Comp Number:	7074

BLACK FALCON LTD (Continued) **S101584036**

Number:	Not reported
Board Of Equalization:	Not reported
Ref Date:	Not reported
Act Date:	Not reported
Created Date:	Not reported
Tank Status:	Not reported
Owner Tank Id:	Not reported
Swrcb Tank Id:	Not reported
Actv Date:	Not reported
Capacity:	Not reported
Tank Use:	Not reported
Stg:	Not reported
Content:	Not reported
Number Of Tanks:	Not reported

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69 **LAKESIDE GOLF CLUB** **HAZNET** **S101584460**
NNW **10340 VALLEY SPRING LN** **CA FID UST** **N/A**
1/2-1 **NORTH HOLLYWOOD, CA 91602**
3330 ft.

Relative:
Lower

Actual:
563 ft.

HAZNET:

Gepaid:	CAL000019606
Contact:	LAKESIDE GOLF CLUB
Telephone:	0000000000
Facility Addr2:	Not reported
Mailing Name:	Not reported
Mailing Address:	PO BOX 2386
Mailing City,St,Zip:	TOLUCA LAKE, CA 916100386
Gen County:	Los Angeles
TSD EPA ID:	CAT080013352
TSD County:	Los Angeles
Waste Category:	Unspecified oil-containing waste
Disposal Method:	Recycler
Tons:	2.5020
Facility County:	Los Angeles

Gepaid:	CAL000019606
Contact:	BRENT WESTON
Telephone:	3238773505
Facility Addr2:	Not reported
Mailing Name:	Not reported
Mailing Address:	PO BOX 2386
Mailing City,St,Zip:	TOLUCA LAKE, CA 916100386
Gen County:	Los Angeles
TSD EPA ID:	CAT080013352
TSD County:	Los Angeles
Waste Category:	Oil/water separation sludge
Disposal Method:	Recycler
Tons:	4.64
Facility County:	Los Angeles

Gepaid:	CAL000019606
Contact:	LAKESIDE GOLF CLUB
Telephone:	0000000000
Facility Addr2:	Not reported
Mailing Name:	Not reported
Mailing Address:	PO BOX 2386
Mailing City,St,Zip:	TOLUCA LAKE, CA 916100386

LAKESIDE GOLF CLUB (Continued) **S101584460**

Gen County: Los Angeles
TSD EPA ID: CAT080013352
TSD County: Los Angeles
Waste Category: Oil/water separation sludge
Disposal Method: Recycler
Tons: 5.4335
Facility County: Los Angeles

Gepaid: CAL000019606
Contact: LAKESIDE GOLF CLUB
Telephone: 0000000000
Facility Addr2: Not reported
Mailing Name: Not reported
Mailing Address: PO BOX 2386
Mailing City,St,Zip: TOLUCA LAKE, CA 916100386
Gen County: Los Angeles
TSD EPA ID: CAD099452708
TSD County: Los Angeles
Waste Category: Oil/water separation sludge
Disposal Method: Not reported
Tons: 1.2510
Facility County: Los Angeles

Gepaid: CAL000019606
Contact: BRENT WESTON
Telephone: 3238773505
Facility Addr2: Not reported
Mailing Name: Not reported
Mailing Address: PO BOX 2386
Mailing City,St,Zip: TOLUCA LAKE, CA 916100386
Gen County: Los Angeles
TSD EPA ID: CAT080013352
TSD County: Los Angeles
Waste Category: Oil/water separation sludge
Disposal Method: Recycler
Tons: 6.87
Facility County: Not reported

Click this hyperlink while viewing on your computer to access
4 additional CA_HAZNET: record(s) in the EDR Site Report.

CA FID UST:
Facility ID: 19011608
Regulated By: UTNKI
Regulated ID: Not reported
Cortese Code: Not reported
SIC Code: Not reported
Facility Phone: 2130000000
Mail To: Not reported
Mailing Address: P O BOX
Mailing Address 2: Not reported
Mailing City,St,Zip: NORTH HOLLYWOOD 916020000
Contact: Not reported
Contact Phone: Not reported
DUNs Number: Not reported
NPDES Number: Not reported
EPA ID: Not reported

LAKESIDE GOLF CLUB (Continued) **S101584460**

Comments: Not reported
Status: Inactive

M70 **TECHNICOLOR** **SWEEPS UST** **S106932806**
WNW **4050 LANKERSHIM BLVD** **N/A**
1/2-1 **MALIBU, CA 90265**
3339 ft.

Site 1 of 5 in cluster M

Relative: Lower

Actual: 563 ft.

SWEEPS UST:

Status:	A
Comp Number:	9738
Number:	9
Board Of Equalization:	44-008554
Ref Date:	03-15-91
Act Date:	03-15-91
Created Date:	06-30-89
Tank Status:	A
Owner Tank Id:	Not reported
Swrcb Tank Id:	19-000-009738-000001
Actv Date:	06-30-89
Capacity:	Not reported
Tank Use:	UNKNOWN
Stg:	W
Content:	Not reported
Number Of Tanks:	10

Status:	A
Comp Number:	9738
Number:	9
Board Of Equalization:	44-008554
Ref Date:	03-15-91
Act Date:	03-15-91
Created Date:	06-30-89
Tank Status:	A
Owner Tank Id:	Not reported
Swrcb Tank Id:	19-000-009738-000002
Actv Date:	06-30-89
Capacity:	Not reported
Tank Use:	UNKNOWN
Stg:	W
Content:	Not reported
Number Of Tanks:	Not reported

Status:	A
Comp Number:	9738
Number:	9
Board Of Equalization:	44-008554
Ref Date:	03-15-91
Act Date:	03-15-91
Created Date:	06-30-89
Tank Status:	A
Owner Tank Id:	Not reported
Swrcb Tank Id:	19-000-009738-000003
Actv Date:	06-30-89
Capacity:	Not reported
Tank Use:	UNKNOWN
Stg:	W

TECHNICOLOR (Continued) **S106932806**

Content: Not reported
Number Of Tanks: Not reported

Status: A
Comp Number: 9738
Number: 9
Board Of Equalization: 44-008554
Ref Date: 03-15-91
Act Date: 03-15-91
Created Date: 06-30-89
Tank Status: A
Owner Tank Id: Not reported
Swrcb Tank Id: 19-000-009738-000004
Actv Date: 06-30-89
Capacity: Not reported
Tank Use: UNKNOWN
Stg: W
Content: Not reported
Number Of Tanks: Not reported

Status: A
Comp Number: 9738
Number: 9
Board Of Equalization: 44-008554
Ref Date: 03-15-91
Act Date: 03-15-91
Created Date: 06-30-89
Tank Status: A
Owner Tank Id: Not reported
Swrcb Tank Id: 19-000-009738-000005
Actv Date: 06-30-89
Capacity: Not reported
Tank Use: UNKNOWN
Stg: W
Content: Not reported
Number Of Tanks: Not reported

Status: A
Comp Number: 9738
Number: 9
Board Of Equalization: 44-008554
Ref Date: 03-15-91
Act Date: 03-15-91
Created Date: 06-30-89
Tank Status: A
Owner Tank Id: Not reported
Swrcb Tank Id: 19-000-009738-000006
Actv Date: 06-30-89
Capacity: Not reported
Tank Use: UNKNOWN
Stg: W
Content: Not reported
Number Of Tanks: Not reported

Status: A
Comp Number: 9738
Number: 9

TECHNICOLOR (Continued) **S106932806**

Board Of Equalization: 44-008554
Ref Date: 03-15-91
Act Date: 03-15-91
Created Date: 06-30-89
Tank Status: A
Owner Tank Id: Not reported
Swrcb Tank Id: 19-000-009738-000007
Actv Date: 06-30-89
Capacity: Not reported
Tank Use: UNKNOWN
Stg: W
Content: Not reported
Number Of Tanks: Not reported

Status: A
Comp Number: 9738
Number: 9
Board Of Equalization: 44-008554
Ref Date: 03-15-91
Act Date: 03-15-91
Created Date: 06-30-89
Tank Status: A
Owner Tank Id: Not reported
Swrcb Tank Id: 19-000-009738-000008
Actv Date: 06-30-89
Capacity: Not reported
Tank Use: UNKNOWN
Stg: W
Content: Not reported
Number Of Tanks: Not reported

Status: A
Comp Number: 9738
Number: 9
Board Of Equalization: 44-008554
Ref Date: 03-15-91
Act Date: 03-15-91
Created Date: 06-30-89
Tank Status: A
Owner Tank Id: Not reported
Swrcb Tank Id: 19-000-009738-000009
Actv Date: 06-30-89
Capacity: Not reported
Tank Use: UNKNOWN
Stg: W
Content: Not reported
Number Of Tanks: Not reported

Status: A
Comp Number: 9738
Number: 9
Board Of Equalization: 44-008554
Ref Date: 03-15-91
Act Date: 03-15-91
Created Date: 06-30-89
Tank Status: A
Owner Tank Id: Not reported

TECHNICOLOR (Continued) **S106932806**

Swrcb Tank Id:	19-000-009738-000010
Actv Date:	06-30-89
Capacity:	Not reported
Tank Use:	UNKNOWN
Stg:	W
Content:	Not reported
Number Of Tanks:	Not reported

M71 **TECHNICOLOR INCORPORATED** **FINDS** **1000243100**
WNW **4050 LANKERSHIM BOULEVARD** **RCRA-LQG** **CAD053893400**
1/2-1 **NORTH HOLLYWOOD, CA 91608** **CA FID UST**
3339 ft. **EMI**
WIP
Site 2 of 5 in cluster M **SWEEPS UST**

Relative:
Lower

Actual:
563 ft.

FINDS:

Other Pertinent Environmental Activity Identified at Site

California - Hazardous Waste Tracking System - Datamart

AFS (Aerometric Information Retrieval System (AIRS) Facility Subsystem) replaces the former Compliance Data System (CDS), the National Emission Data System (NEDS), and the Storage and Retrieval of Aerometric Data (SAROAD). AIRS is the national repository for information concerning airborne pollution in the United States. AFS is used to track emissions and compliance data from industrial plants. AFS data are utilized by states to prepare State Implementation Plans to comply with regulatory programs and by EPA as an input for the estimation of total national emissions. AFS is undergoing a major redesign to support facility operating permits required under Title V of the Clean Air Act.

The NEI (National Emissions Inventory) database contains information on stationary and mobile sources that emit criteria air pollutants and their precursors, as well as hazardous air pollutants (HAPs).

RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

TECHNICOLOR INCORPORATED (Continued) **1000243100**

RCRAInfo:
Owner: NOT REQUIRED
(415) 555-1212
EPA ID: CAD053893400

Contact: ENVIRONMENTAL MANAGER

Classification: Large Quantity Generator
TSDF Activities: Not reported

BIENNIAL REPORTS:
Last Biennial Reporting Year: 2005

Waste	Quantity (Lbs)	Waste	Quantity (Lbs)
D001	7052.84	D002	3837.85
D008	600.00	D011	3753.13
D039	6536.25	F002	7579.09
F003	3362.84		

Violation Status: No violations found

CA FID UST:
Facility ID: 19000621
Regulated By: UTNKA
Regulated ID: Not reported
Cortese Code: Not reported
SIC Code: Not reported
Facility Phone: 8187698500
Mail To: Not reported
Mailing Address: 4050 LANKERSHIM BLVD
Mailing Address 2: Not reported
Mailing City,St,Zip: NORTH HOLLYWOOD 916040000
Contact: Not reported
Contact Phone: Not reported
DUNs Number: Not reported
NPDES Number: Not reported
EPA ID: Not reported
Comments: Not reported
Status: Active

EMI:
Year: 1987
Carbon Monoxide Emissions Tons/Yr: 19
Air Basin: SC
Facility ID: 6643
Air District Name: SC
SIC Code: 7819
Air District Name: SOUTH COAST AQMD
Community Health Air Pollution Info System: Not reported
Consolidated Emission Reporting Rule: Not reported
Total Organic Hydrocarbon Gases Tons/Yr: 40
Reactive Organic Gases Tons/Yr: 2
Carbon Monoxide Emissions Tons/Yr: 1
NOX - Oxides of Nitrogen Tons/Yr: 3
SOX - Oxides of Sulphur Tons/Yr: 0
Particulate Matter Tons/Yr: 0
Part. Matter 10 Micrometers & Smllr Tons/Yr: 0

TECHNICOLOR INCORPORATED (Continued) **1000243100**

Year:	1990
Carbon Monoxide Emissions Tons/Yr:	19
Air Basin:	SC
Facility ID:	6643
Air District Name:	SC
SIC Code:	7819
Air District Name:	SOUTH COAST AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	105
Reactive Organic Gases Tons/Yr:	0
Carbon Monoxide Emissions Tons/Yr:	1
NOX - Oxides of Nitrogen Tons/Yr:	3
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers & Smllr Tons/Yr:	0

Year:	1995
Carbon Monoxide Emissions Tons/Yr:	19
Air Basin:	SC
Facility ID:	6643
Air District Name:	SC
SIC Code:	7819
Air District Name:	SOUTH COAST AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	60
Reactive Organic Gases Tons/Yr:	1
Carbon Monoxide Emissions Tons/Yr:	1
NOX - Oxides of Nitrogen Tons/Yr:	3
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	2
Part. Matter 10 Micrometers & Smllr Tons/Yr:	1

Year:	1996
Carbon Monoxide Emissions Tons/Yr:	19
Air Basin:	SC
Facility ID:	6643
Air District Name:	SC
SIC Code:	7819
Air District Name:	SOUTH COAST AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	44
Reactive Organic Gases Tons/Yr:	1
Carbon Monoxide Emissions Tons/Yr:	4
NOX - Oxides of Nitrogen Tons/Yr:	9
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	4
Part. Matter 10 Micrometers & Smllr Tons/Yr:	3

Year:	1997
Carbon Monoxide Emissions Tons/Yr:	19
Air Basin:	SC
Facility ID:	6643
Air District Name:	SC
SIC Code:	7819

TECHNICOLOR INCORPORATED (Continued) **1000243100**

Air District Name:	SOUTH COAST AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	56
Reactive Organic Gases Tons/Yr:	2
Carbon Monoxide Emissions Tons/Yr:	3
NOX - Oxides of Nitrogen Tons/Yr:	6
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	3
Part. Matter 10 Micrometers & Smllr Tons/Yr:	2

Year:	1998
Carbon Monoxide Emissions Tons/Yr:	19
Air Basin:	SC
Facility ID:	6643
Air District Name:	SC
SIC Code:	7819
Air District Name:	SOUTH COAST AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	56
Reactive Organic Gases Tons/Yr:	2
Carbon Monoxide Emissions Tons/Yr:	3
NOX - Oxides of Nitrogen Tons/Yr:	6
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	3
Part. Matter 10 Micrometers & Smllr Tons/Yr:	2

Year:	1999
Carbon Monoxide Emissions Tons/Yr:	19
Air Basin:	SC
Facility ID:	6643
Air District Name:	SC
SIC Code:	7819
Air District Name:	SOUTH COAST AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	56
Reactive Organic Gases Tons/Yr:	2
Carbon Monoxide Emissions Tons/Yr:	3
NOX - Oxides of Nitrogen Tons/Yr:	6
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	3
Part. Matter 10 Micrometers & Smllr Tons/Yr:	2

Year:	2000
Carbon Monoxide Emissions Tons/Yr:	19
Air Basin:	SC
Facility ID:	6643
Air District Name:	SC
SIC Code:	7819
Air District Name:	SOUTH COAST AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	56
Reactive Organic Gases Tons/Yr:	2
Carbon Monoxide Emissions Tons/Yr:	3

TECHNICOLOR INCORPORATED (Continued) **1000243100**

NOX - Oxides of Nitrogen Tons/Yr:	6
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	3
Part. Matter 10 Micrometers & Smllr Tons/Yr:	2
Year:	2001
Carbon Monoxide Emissions Tons/Yr:	19
Air Basin:	SC
Facility ID:	6643
Air District Name:	SC
SIC Code:	7819
Air District Name:	SOUTH COAST AQMD
Community Health Air Pollution Info System:	Y
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	11
Reactive Organic Gases Tons/Yr:	7
Carbon Monoxide Emissions Tons/Yr:	1
NOX - Oxides of Nitrogen Tons/Yr:	2
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	1
Part. Matter 10 Micrometers & Smllr Tons/Yr:	1
Year:	2002
Carbon Monoxide Emissions Tons/Yr:	19
Air Basin:	SC
Facility ID:	6643
Air District Name:	SC
SIC Code:	7819
Air District Name:	SOUTH COAST AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	5
Reactive Organic Gases Tons/Yr:	2
Carbon Monoxide Emissions Tons/Yr:	0
NOX - Oxides of Nitrogen Tons/Yr:	1
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers & Smllr Tons/Yr:	0
Year:	2003
Carbon Monoxide Emissions Tons/Yr:	19
Air Basin:	SC
Facility ID:	6643
Air District Name:	SC
SIC Code:	7819
Air District Name:	SOUTH COAST AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	5
Reactive Organic Gases Tons/Yr:	2
Carbon Monoxide Emissions Tons/Yr:	0
NOX - Oxides of Nitrogen Tons/Yr:	1
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers & Smllr Tons/Yr:	0
Year:	2004

TECHNICOLOR INCORPORATED (Continued) **1000243100**

Carbon Monoxide Emissions Tons/Yr:	19
Air Basin:	SC
Facility ID:	6643
Air District Name:	SC
SIC Code:	7819
Air District Name:	SOUTH COAST AQMD
Community Health Air Pollution Info System:	Y
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	4.9450761
Reactive Organic Gases Tons/Yr:	1.98
Carbon Monoxide Emissions Tons/Yr:	0.155575
NOX - Oxides of Nitrogen Tons/Yr:	1.2494
SOX - Oxides of Sulphur Tons/Yr:	0.0198038
Particulate Matter Tons/Yr:	0.400635
Part. Matter 10 Micrometers & Smllr Tons/Yr:	0.38

Year:	2005
Carbon Monoxide Emissions Tons/Yr:	19
Air Basin:	SC
Facility ID:	6643
Air District Name:	SC
SIC Code:	7819
Air District Name:	SOUTH COAST AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	.5244157
Reactive Organic Gases Tons/Yr:	.2490501231
Carbon Monoxide Emissions Tons/Yr:	.43483
NOX - Oxides of Nitrogen Tons/Yr:	.739475
SOX - Oxides of Sulphur Tons/Yr:	.01
Particulate Matter Tons/Yr:	.37091593
Part. Matter 10 Micrometers & Smllr Tons/Yr:	.346415365049

WIP:

Region:	4
File Number:	111.1033
File Status:	**Active**
Staff:	MZAIDI
Facility Suite:	Not reported

SWEEPS UST:

Status:	A
Comp Number:	5288
Number:	1
Board Of Equalization:	Not reported
Ref Date:	08-30-93
Act Date:	08-30-93
Created Date:	02-29-88
Tank Status:	Not reported
Owner Tank Id:	Not reported
Swrcb Tank Id:	Not reported
Actv Date:	Not reported
Capacity:	Not reported
Tank Use:	Not reported
Stg:	Not reported
Content:	Not reported

TECHNICOLOR INCORPORATED (Continued) **1000243100**

Number Of Tanks: Not reported

M72 **TECHNICOLOR INCORPORATED** **UST** **U003780150**
WNW **4050 LANKERSHIM BLVD** **N/A**
1/2-1 **STUDIO CITY, CA 91604**
3339 ft.

Site 3 of 5 in cluster M

Relative:
Lower

UST:
Region: STATE
Actual: Local Agency: Los Angeles, Los Angeles County
563 ft. Facility ID: 23638

M73 **TECHNICOLOR INC** **LUST** **S100875603**
WNW **4050 LANKERSHIM BLVD** **Cortese** **N/A**
1/2-1 **STUDIO CITY, CA 91604**
3339 ft.

Site 4 of 5 in cluster M

Relative:
Lower

LUST:
Region: STATE
Actual: Case Type: Other ground water affected
563 ft. Cross Street: Not reported
Enf Type: Not reported
Funding: Not reported
How Discovered: Not reported
How Stopped: Not reported
Leak Cause: UNK
Leak Source: UNK
Global Id: T0603700186
Stop Date: Not reported
Confirm Leak: Not reported
Workplan: Not reported
Prelim Assess: Not reported
Pollution Char: 1988-04-25 00:00:00
Remed Plan: Not reported
Remed Action: 1998-12-07 00:00:00
Monitoring: Not reported
Close Date: Not reported
Discover Date: Not reported
Enforcement Dt: Not reported
Release Date: 1983-11-18 00:00:00
Review Date: 1998-12-07 00:00:00
Enter Date: 1986-12-31 00:00:00
MTBE Date: Not reported
GW Qualifier: Not reported
Soil Qualifier: Not reported
Max MTBE GW ppb: Not reported
Max MTBE Soil ppb: Not reported
County: 19
Org Name: Not reported
Reg Board: Los Angeles Region
Status: Remedial action (cleanup) Underway
Chemical: Solvents
Contact Person: Not reported
Responsible Party: BLANK RP

TECHNICOLOR INC (Continued) **S100875603**

RP Address: 4050 LANKERSHIM BLVD., STUDIO CITY, CA 91604
Interim: Not reported
Oversight Prgm: LUFT
MTBE Class: *
MTBE Conc: 0
MTBE Fuel: 0
MTBE Tested: Not Required to be Tested.
Staff: MZ
Staff Initials: PEJ
Lead Agency: Regional Board
Local Agency: 19050
Hydr Basin #: SAN FERNANDO VALLEY
Beneficial: Not reported
Priority: Not reported
Cleanup Fund Id: Not reported
Work Suspended: Not reported
Local Case #: 1849500
Case Number: 111.1033
Qty Leaked: Not reported
Abate Method: Not reported
Operator: Not reported
Water System Name: Not reported
Well Name: Not reported
Distance To Lust: 0
Waste Discharge Global ID: Not reported
Waste Disch Assigned Name: Not reported
Summary: *DUE DATE 07/25/86. **DAB AUTHORIZED MAINTENANCE BY UGT UNITWIP CASE #111.1033 is still active for VOC remediation, tks are closed by LA City Fire Department 07/23/98 - NOTICE OF VIOLATION & ORDER TO COM

LUST:
Region: 4
Staff: MZ
County: Los Angeles
Local Agency: 19050
Lead Agency: Regional Board
Case Type: Groundwater
Status: Remedial action (cleanup) Underway
Substance: Solvents
Cross Street: Not reported
Global ID: T0603700186
Enforcement Type: Not reported
Date Leak Discovered: Not reported
Date Leak Record Entered: 12/31/1986
How Leak Discovered: Not reported
How Leak Stopped: Not reported
Cause of Leak: UNK
Leak Source: UNK
Date Leak Stopped: Not reported
Date Confirmation Began: Not reported
Operator: Not reported
Water System: Not reported
Well Name: Not reported
Approx. Dist To Production Well (ft): 6197.32098369883692836155726 26
Abatement Method Used at the Site: Not reported
Source of Cleanup Funding: Not reported
Date Leak First Reported: 11/18/1983

TECHNICOLOR INC (Continued) **S100875603**

Preliminary Site Assessment Workplan Submitted: Not reported
Preliminary Site Assessment Began: Not reported
Pollution Characterization Began: 4/25/1988
Remediation Plan Submitted: Not reported
Remedial Action Underway: 12/7/1998
Post Remedial Action Monitoring Began: Not reported
Date the Case was Closed: Not reported
Date Case Last Changed on Database: 12/7/1998
Enforcement Action Date: Not reported
Historical Max MTBE Date: Not reported
Hist Max MTBE Conc in Groundwater: Not reported
Hist Max MTBE Conc in Soil: Not reported
Significant Interim Remedial Action Taken: Not reported
GW Qualifier: Not reported
Soil Qualifier: Not reported
Organization: Not reported
Regional Board: 04
Owner Contact: Not reported
Responsible Party: BLANK RP
RP Address: 4050 LANKERSHIM BLVD., STUDIO CITY, CA 91604
Program: SLIC
Lat/Long: 34.1422091 / -1
Local Agency Staff: PEJ
Beneficial Use: Not reported
Priority: Not reported
Cleanup Fund Id: Not reported
Suspended: Not reported
Local Case No: 1849500
Substance Quantity: Not reported
Assigned Name: Not reported
W Global ID: Not reported
Summary: *DUE DATE 07/25/86. **DAB AUTHORIZED MAINTENANCE BY UGT UNITWIP CASE #111.1033 is still active for VOC remediation, tks are closed by LA City Fire Department 07/23/98 - NOTICE OF VIOLATION & ORDER TO COM

Cortese:
Region: CORTESE
Facility Addr2: 4050 LANKERSHIM BLVD

N74 **CHEVRON STATION NO 96311** **RCRA-SQG** **1005904327**
WSW **3780 CAHUENGA BLVD** **FINDS** **CAR000121368**
1/2-1 **STUDIO CITY, CA 91604** **HAZNET**
3371 ft.

Site 1 of 6 in cluster N

Relative:
Lower

Actual:
600 ft.

CHEVRON STATION NO 96311 (Continued) **1005904327**

RCRAInfo:
Owner: CHEVRON PRODUCTS COMPANY
(925) 842-5931
EPA ID: CAR000121368

Contact: KATHY NORRIS
(925) 842-5931

Classification: Small Quantity Generator
TSDF Activities: Not reported

Violation Status: No violations found

FINDS:
Other Pertinent Environmental Activity Identified at Site

California - Hazardous Waste Tracking System - Datamart

RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

HAZNET:
Gepaid: CAR000121368
Contact: Kathy Norris
Telephone: 9258425931
Facility Addr2: Not reported
Mailing Name: Not reported
Mailing Address: PO BOX 6004
Mailing City,St,Zip: San Ramon, CA 94583
Gen County: Los Angeles
TSD EPA ID: CAD008302903
TSD County: Los Angeles
Waste Category: Aqueous solution with less than 10% total organic residues
Disposal Method: Recycler
Tons: 0.2
Facility County: Los Angeles

N75 **96311** **HIST UST** **U001568505**
WSW **3780 CAHUENGA BLVD** **N/A**
1/2-1 **STUDIO CITY, CA 91604**
3371 ft.

Site 2 of 6 in cluster N

Relative: Lower

Actual: 600 ft.

HIST UST:
Region: STATE
Facility ID: 00000062872
Tank Num: 001
Container Num: 1
Year Installed: 1962
Tank Capacity: 00008000

96311 (Continued) **U001568505**

Facility Type: Gas Station
Other Type: Not reported
Total Tanks: 0004
Tank Used for: PRODUCT
Type of Fuel: Not reported
Tank Construction: 0000250 unknown
Leak Detection: Stock Inventor
Contact Name: HAYS,JERRY
Telephone: 8189859293
Owner Name: CHEVRON U.S.A. INC.
Owner Address: 575 MARKET
Owner City,St,Zip: SAN FRANCISCO, CA 94105

Region: STATE
Facility ID: 00000062872
Tank Num: 002
Container Num: 2
Year Installed: 1962
Tank Capacity: 00005000
Facility Type: Gas Station
Other Type: Not reported
Total Tanks: 0004
Tank Used for: PRODUCT
Type of Fuel: Not reported
Tank Construction: 0000250 unknown
Leak Detection: Stock Inventor
Contact Name: HAYS,JERRY
Telephone: 8189859293
Owner Name: CHEVRON U.S.A. INC.
Owner Address: 575 MARKET
Owner City,St,Zip: SAN FRANCISCO, CA 94105

Region: STATE
Facility ID: 00000062872
Tank Num: 003
Container Num: 3
Year Installed: 1962
Tank Capacity: 00004000
Facility Type: Gas Station
Other Type: Not reported
Total Tanks: 0004
Tank Used for: PRODUCT
Type of Fuel: Not reported
Tank Construction: 0000170 unknown
Leak Detection: Stock Inventor
Contact Name: HAYS,JERRY
Telephone: 8189859293
Owner Name: CHEVRON U.S.A. INC.
Owner Address: 575 MARKET
Owner City,St,Zip: SAN FRANCISCO, CA 94105

Region: STATE
Facility ID: 00000062872
Tank Num: 004
Container Num: 4
Year Installed: 1962
Tank Capacity: 00000550

96311 (Continued) **U001568505**

Facility Type:	Gas Station
Other Type:	Not reported
Total Tanks:	0004
Tank Used for:	WASTE
Type of Fuel:	Not reported
Tank Construction:	0000100 unknown
Leak Detection:	Stock Inventor
Contact Name:	HAYS,JERRY
Telephone:	8189859293
Owner Name:	CHEVRON U.S.A. INC.
Owner Address:	575 MARKET
Owner City,St,Zip:	SAN FRANCISCO, CA 94105

N76 **CHEVRON STATION #9-6311** **UST** **U003938981**
WSW **3780 CAHUENGA BLVD** **N/A**
1/2-1 **STUDIO CITY, CA 91604**
3371 ft.

Site 3 of 6 in cluster N

Relative:
Lower

Actual:
600 ft.

UST:

Region:	STATE
Local Agency:	Los Angeles, Los Angeles County
Facility ID:	23774

N77 **HARBANS SINGH** **SWEEPS UST** **S106927067**
WSW **3780 N CAHUENGA BLVD** **N/A**
1/2-1 **STUDIO CITY, CA 91604**
3371 ft.

Site 4 of 6 in cluster N

Relative:
Lower

Actual:
600 ft.

SWEEPS UST:

Status:	A
Comp Number:	3602
Number:	2
Board Of Equalization:	44-013145
Ref Date:	02-25-93
Act Date:	04-25-94
Created Date:	02-29-88
Tank Status:	A
Owner Tank Id:	Not reported
Swrcb Tank Id:	19-050-003602-000001
Actv Date:	04-20-88
Capacity:	8000
Tank Use:	CHEMICAL
Stg:	P
Content:	UNKNOWN
Number Of Tanks:	3

Status:	A
Comp Number:	3602
Number:	2
Board Of Equalization:	44-013145
Ref Date:	02-25-93
Act Date:	04-25-94
Created Date:	02-29-88
Tank Status:	A

HARBANS SINGH (Continued) **S106927067**

Owner Tank Id:	Not reported
Swrcb Tank Id:	19-050-003602-000002
Actv Date:	04-20-88
Capacity:	5000
Tank Use:	CHEMICAL
Stg:	P
Content:	UNKNOWN
Number Of Tanks:	Not reported
Status:	A
Comp Number:	3602
Number:	2
Board Of Equalization:	44-013145
Ref Date:	02-25-93
Act Date:	04-25-94
Created Date:	02-29-88
Tank Status:	A
Owner Tank Id:	Not reported
Swrcb Tank Id:	19-050-003602-000003
Actv Date:	04-20-88
Capacity:	4000
Tank Use:	CHEMICAL
Stg:	P
Content:	UNKNOWN
Number Of Tanks:	Not reported

N78 **CHEVRON #9-6311** **LUST** **S106716230**
WSW **3780 CAHUENGA BLVD.** **N/A**
1/2-1 **STUDIO CITY, CA 91604**
3371 ft.

Site 5 of 6 in cluster N

Relative:
Lower

Actual:
600 ft.

LUST:

Region:	STATE
Case Type:	Soil only
Cross Street:	ORO VISTA AVE.
Enf Type:	SEL
Funding:	RB
How Discovered:	OM
How Stopped:	Not reported
Leak Cause:	UNK
Leak Source:	UNK
Global Id:	T0603776208
Stop Date:	Not reported
Confirm Leak:	2004-04-06 00:00:00
Workplan:	Not reported
Prelim Assess:	Not reported
Pollution Char:	Not reported
Remed Plan:	Not reported
Remed Action:	Not reported
Monitoring:	Not reported
Close Date:	Not reported
Discover Date:	2004-04-06 00:00:00
Enforcement Dt:	Not reported
Release Date:	2004-04-06 00:00:00
Review Date:	Not reported
Enter Date:	Not reported
MTBE Date:	Not reported

CHEVRON #9-6311 (Continued) **S106716230**

GW Qualifier: Not reported
Soil Qualifier: Not reported
Max MTBE GW ppb: Not reported
Max MTBE Soil ppb: Not reported
County: 19
Org Name: Not reported
Reg Board: Los Angeles Region
Status: Leak being confirmed
Chemical: Gasoline
Contact Person: Not reported
Responsible Party: Y. M. TUAN
RP Address: 145 S. STATE COLLEGE BL.
Interim: Not reported
Oversight Prgm: LUST
MTBE Class: *
MTBE Conc: 0
MTBE Fuel: 1
MTBE Tested: Site NOT Tested for MTBE.Includes Unknown and Not Analyzed.
Staff: MB
Staff Initials: ML
Lead Agency: Regional Board
Local Agency: 19050
Hydr Basin #: Not reported
Beneficial: Not reported
Priority: Not reported
Cleanup Fund Id: Not reported
Work Suspended: Not reported
Local Case #: 3380
Case Number: 916041189
Qty Leaked: Not reported
Abate Method: Not reported
Operator: Not reported
Water System Name: Not reported
Well Name: Not reported
Distance To Lust: 0
Waste Discharge Global ID: Not reported
Waste Disch Assigned Name: Not reported
Summary: Not reported

N79 **HARBANS SINGH** **CA FID UST** **S101586400**
WSW **3780 CAHUENGA BLVD** **N/A**
1/2-1 **STUDIO CITY, CA 91604**
3371 ft.

Site 6 of 6 in cluster N

Relative: Lower

Actual: 600 ft.

CA FID UST:
Facility ID: 19048899
Regulated By: UTNKA
Regulated ID: 00062872
Cortese Code: Not reported
SIC Code: Not reported
Facility Phone: 8185090790
Mail To: Not reported
Mailing Address: 3780 CAHUENGA BLVD
Mailing Address 2: Not reported
Mailing City,St,Zip: STUDIO CITY 916040000
Contact: Not reported
Contact Phone: Not reported

HARBANS SINGH (Continued) **S101586400**

DUNs Number: Not reported
NPDES Number: Not reported
EPA ID: Not reported
Comments: Not reported
Status: Active

O80 **TUNTEX PROPERTIES INC** **CA FID UST** **S101588294**
West **3840 LANKERSHIM BLVD** **SWEEPS UST** **N/A**
1/2-1 **UNIVERSAL CITY, CA 91608**
3440 ft.

Site 1 of 6 in cluster O

Relative:
Lower

Actual:
599 ft.

CA FID UST:
Facility ID: 19056539
Regulated By: UTNKA
Regulated ID: Not reported
Cortese Code: Not reported
SIC Code: Not reported
Facility Phone: 2130000000
Mail To: Not reported
Mailing Address: 3840 LANKERSHIM BLVD
Mailing Address 2: Not reported
Mailing City,St,Zip: UNIVERSAL CITY 916080000
Contact: Not reported
Contact Phone: Not reported
DUNs Number: Not reported
NPDES Number: Not reported
EPA ID: Not reported
Comments: Not reported
Status: Active

SWEEPS UST:
Status: Not reported
Comp Number: 7908
Number: Not reported
Board Of Equalization: Not reported
Ref Date: Not reported
Act Date: Not reported
Created Date: Not reported
Tank Status: Not reported
Owner Tank Id: Not reported
Swrcb Tank Id: Not reported
Actv Date: Not reported
Capacity: Not reported
Tank Use: Not reported
Stg: Not reported
Content: Not reported
Number Of Tanks: Not reported

O81 **SHERATON UNIVERSAL HOTEL** **CA FID UST** **S101583274**
West **3838 LANKERSHIM BLVD** **SWEEPS UST** **N/A**
1/2-1 **UNIVERSAL CITY, CA 91608**
3449 ft.

Site 2 of 6 in cluster O

Relative:
Lower

Actual:
599 ft.

CA FID UST:

Facility ID:	19003253
Regulated By:	UTNKA
Regulated ID:	Not reported
Cortese Code:	Not reported
SIC Code:	Not reported
Facility Phone:	2139801212
Mail To:	Not reported
Mailing Address:	3838 LANKERSHIM BLVD
Mailing Address 2:	Not reported
Mailing City,St,Zip:	UNIVERSAL CITY 916080000
Contact:	Not reported
Contact Phone:	Not reported
DUNs Number:	Not reported
NPDES Number:	Not reported
EPA ID:	Not reported
Comments:	Not reported
Status:	Active

SWEEPS UST:

Status:	Not reported
Comp Number:	5937
Number:	Not reported
Board Of Equalization:	Not reported
Ref Date:	Not reported
Act Date:	Not reported
Created Date:	Not reported
Tank Status:	Not reported
Owner Tank Id:	Not reported
Swrcb Tank Id:	Not reported
Actv Date:	Not reported
Capacity:	Not reported
Tank Use:	Not reported
Stg:	Not reported
Content:	Not reported
Number Of Tanks:	Not reported

O82 **10 UNIVERSAL CITY PLAZA** **Cortese** **S103065579**
West **3838 LANKERSHIM** **N/A**
1/2-1 **LOS ANGELES, CA 91608**
3453 ft.

Site 3 of 6 in cluster O

Relative:
Lower

Actual:
600 ft.

Cortese:

Region:	CORTESE
Facility Addr2:	Not reported

P83 **CALIFORNIA AUTO BODY** **RCRA-SQG** **1000252244**
SSE **3241 W CAHUENGA BLVD** **FINDS** **CAD981623853**
1/2-1 **HOLLYWOOD, CA 90068** **CA FID UST**
3455 ft. **HIST UST**
SWEEPS UST

Site 1 of 5 in cluster P

Relative:
Lower

Actual:
707 ft.

RCRAInfo:
Owner: KIGHTLINGER ROBERT
(415) 555-1212
EPA ID: CAD981623853

Contact: Not reported

Classification: Small Quantity Generator
TSDF Activities: Not reported

Violation Status: No violations found

FINDS:
Other Pertinent Environmental Activity Identified at Site

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CA FID UST:
Facility ID: 19054303
Regulated By: UTNKI
Regulated ID: Not reported
Cortese Code: Not reported
SIC Code: Not reported
Facility Phone: 2138746932
Mail To: Not reported
Mailing Address: 3241 CALIVENGA WEST BLVD
Mailing Address 2: Not reported
Mailing City,St,Zip: LOS ANGELES 900680000
Contact: Not reported
Contact Phone: Not reported
DUNs Number: Not reported
NPDES Number: Not reported
EPA ID: Not reported
Comments: Not reported
Status: Inactive

HIST UST:
Region: STATE
Facility ID: 00000043257
Tank Num: 001
Container Num: #1
Year Installed: Not reported
Tank Capacity: 00000055
Facility Type: Other
Other Type: AUTO BODY SHOP

CALIFORNIA AUTO BODY (Continued) **1000252244**

Total Tanks: 0001
Tank Used for: WASTE
Type of Fuel: Not reported
Tank Construction: Not reported
Leak Detection: Visual
Contact Name: DAN KANASHIRO
Telephone: 2138746932
Owner Name: ROBERT KIGHTLINGER, DAN KANASH
Owner Address: 923 W. ANGELENO ST #F
Owner City,St,Zip: BURBANK, CA 91506

SWEEPS UST:
Status: Not reported
Comp Number: 3831
Number: Not reported
Board Of Equalization: Not reported
Ref Date: Not reported
Act Date: Not reported
Created Date: Not reported
Tank Status: Not reported
Owner Tank Id: Not reported
Swrcb Tank Id: Not reported
Actv Date: Not reported
Capacity: Not reported
Tank Use: Not reported
Stg: Not reported
Content: Not reported
Number Of Tanks: 0

84
WNW
1/2-1
3502 ft.

Relative:
Lower

Actual:
565 ft.

BLUFFSIDE & WILLOWCREST **WMUDS/SWAT** **S101612952**
BLUFFSIDE DR / WILLOWCREST AVE **N/A**
LOS ANGELES, CA

WMUDS/SWAT:
Edit Date: Not reported
Complexity: Not reported
Primary Waste: Not reported
Primary Waste Type: Not reported
Secondary Waste: Not reported
Secondary Waste Type: Not reported
Base Meridian: Not reported
NPID: Not reported
Tonnage: 0
Regional Board ID: Not reported
Municipal Solid Waste: False
Superorder: False
Open To Public: False
Waste List: False
Agency Type: Not reported
Agency Name: Not reported
Agency Department: Not reported
Agency Address: Not reported
Agency City,St,Zip: Not reported
Agency Contact: Not reported
Agency Telephone: Not reported
Land Owner Name: Not reported

BLUFFSIDE & WILLOWCREST (Continued) **S101612952**

Land Owner Address:	Not reported
Land Owner City,St,Zip:	CA
Land Owner Contact:	Not reported
Land Owner Phone:	Not reported
Region:	4
Facility Type:	Not reported
Facility Description:	Not reported
Facility Telephone:	Not reported
SWAT Facility Name:	Not reported
Primary SIC:	Not reported
Secondary SIC:	Not reported
Comments:	Not reported
Last Facility Editors:	Not reported
Waste Discharge System:	False
Solid Waste Assessment Test Program:	True
Toxic Pits Cleanup Act Program:	False
Resource Conservation Recovery Act:	False
Department of Defence:	False
Solid Waste Assessment Test Program:	Not reported
Threat to Water Quality:	Not reported
Sub Chapter 15:	False
Regional Board Project Officer:	LT
Number of WMUDS at Facility:	1
Section Range:	Not reported
RCRA Facility:	Not reported
Waste Discharge Requirements:	Not reported
Self-Monitoring Rept. Frequency:	Not reported
Waste Discharge System ID:	4 190042NUR
Solid Waste Information ID:	Not reported

M85 **LA PUMPING PLANT #16** **RCRA-SQG 1000350198**
WNW **4080 CAHUENGA BLVD** **FINDS CAD981989874**
1/2-1 **LOS ANGELES, CA 90068**
3512 ft.

Site 5 of 5 in cluster M

Relative: Lower

Actual: 545 ft.

RCRAInfo:

Owner:	CITY OF LOS ANGELES
	(415) 555-1212
EPA ID:	CAD981989874
Contact:	ENVIRONMENTAL MANAGER
	(213) 485-7527
Classification:	Small Quantity Generator
TSDF Activities:	Not reported

Violation Status: No violations found

FINDS:

Other Pertinent Environmental Activity Identified at Site

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O86 **FOUR STAR VENTURA LTD** **CA FID UST** **S101586851**
West **10600 VENTURA BLVD** **SWEEPS UST** **N/A**
1/2-1 **NORTH HOLLYWOOD, CA 91604**
3549 ft.

Site 4 of 6 in cluster O

Relative:
Lower

Actual:
600 ft.

CA FID UST:

Facility ID:	19054536
Regulated By:	UTNKI
Regulated ID:	Not reported
Cortese Code:	Not reported
SIC Code:	Not reported
Facility Phone:	2130000000
Mail To:	Not reported
Mailing Address:	10600 VENTURA BLVD
Mailing Address 2:	Not reported
Mailing City,St,Zip:	NORTH HOLLYWOOD 916040000
Contact:	Not reported
Contact Phone:	Not reported
DUNs Number:	Not reported
NPDES Number:	Not reported
EPA ID:	Not reported
Comments:	Not reported
Status:	Inactive

SWEEPS UST:

Status:	Not reported
Comp Number:	6795
Number:	Not reported
Board Of Equalization:	Not reported
Ref Date:	Not reported
Act Date:	Not reported
Created Date:	Not reported
Tank Status:	Not reported
Owner Tank Id:	Not reported
Swrcb Tank Id:	Not reported
Actv Date:	Not reported
Capacity:	Not reported
Tank Use:	Not reported
Stg:	Not reported
Content:	Not reported
Number Of Tanks:	0

O87 **10 UNIVERSAL CITY PLAZA** **HIST UST** **U001568628**
West **3800 LANKERSHIM BLVD** **N/A**
1/2-1 **STUDIO CITY, CA 91608**
3549 ft.

Site 5 of 6 in cluster O

Relative:
Lower

Actual:
600 ft.

HIST UST:

Region:	STATE
Facility ID:	00000005341
Tank Num:	001
Container Num:	FT-1
Year Installed:	1983
Tank Capacity:	00006000
Facility Type:	Other
Other Type:	OFFICE BUILDING
Total Tanks:	0003

10 UNIVERSAL CITY PLAZA (Continued) **U001568628**

Tank Used for: PRODUCT
Type of Fuel: DIESEL
Tank Construction: 3/8 inches
Leak Detection: Stock Inventor, 10
Contact Name: TEXACO
Telephone: 8185098379
Owner Name: MCA DEVELOPMENT COMPANY
Owner Address: 100 UNIVERSAL CITY PLAZA
Owner City,St,Zip: UNIVERSAL CITY, CA 91608

Region: STATE
Facility ID: 00000005341
Tank Num: 002
Container Num: FT-2
Year Installed: 1984
Tank Capacity: 00008000
Facility Type: Other
Other Type: OFFICE BUILDING
Total Tanks: 0003
Tank Used for: PRODUCT
Type of Fuel: UNLEADED
Tank Construction: 3/8 inches
Leak Detection: Stock Inventor, 10
Contact Name: TEXACO
Telephone: 8185098379
Owner Name: MCA DEVELOPMENT COMPANY
Owner Address: 100 UNIVERSAL CITY PLAZA
Owner City,St,Zip: UNIVERSAL CITY, CA 91608

Region: STATE
Facility ID: 00000005341
Tank Num: 003
Container Num: FT-3
Year Installed: 1984
Tank Capacity: 00008000
Facility Type: Other
Other Type: OFFICE BUILDING
Total Tanks: 0003
Tank Used for: PRODUCT
Type of Fuel: UNLEADED
Tank Construction: 3/8 inches
Leak Detection: Stock Inventor, 10
Contact Name: TEXACO
Telephone: 8185098379
Owner Name: MCA DEVELOPMENT COMPANY
Owner Address: 100 UNIVERSAL CITY PLAZA
Owner City,St,Zip: UNIVERSAL CITY, CA 91608

P88 **PAUL TALIEH-MOBIL-#14-192** **CA FID UST** **S101617322**
SSE **3240 CAHUENGA BLVD** **N/A**
1/2-1 **HOLLYWOOD, CA 90028**
3593 ft.

Site 2 of 5 in cluster P

Relative:
Lower

CA FID UST:
Facility ID: 19003680
Actual: Regulated By: UTNKA
707 ft. Regulated ID: 00039766
Cortese Code: Not reported
SIC Code: Not reported
Facility Phone: 2138500000
Mail To: Not reported
Mailing Address: 612 S FLOWER ST
Mailing Address 2: Not reported
Mailing City,St,Zip: HOLLYWOOD 900280000
Contact: Not reported
Contact Phone: Not reported
DUNs Number: Not reported
NPDES Number: Not reported
EPA ID: Not reported
Comments: Not reported
Status: Active

P89 **MOBIL #11-F6E** **Cortese** **S105024092**
SSE **3240 CAHUENGA BLVD W** **N/A**
1/2-1 **HOLLYWOOD, CA 90038**
3593 ft.

Site 3 of 5 in cluster P

Relative:
Lower

Cortese:
Region: CORTESE
Actual: Facility Addr2: 3240 CAHUENGA BLVD W
707 ft.

P90 **MOBIL SERVICE STATION F6E** **UST** **U003781435**
SSE **3240 CAHUENGA BLVD W** **N/A**
1/2-1 **LOS ANGELES, CA 90068**
3593 ft.

Site 4 of 5 in cluster P

Relative:
Lower

UST:
Region: STATE
Actual: Local Agency: Los Angeles, Los Angeles County
707 ft. Facility ID: 25142

P91 **MOBIL 18-F6E** **LUST** **S106028168**
SSE **3240 CAHUENGA BLVD W** **N/A**
1/2-1 **HOLLYWOOD, CA 90068**
3593 ft.

Site 5 of 5 in cluster P

Relative:
Lower

LUST:
Region: STATE
Actual: Case Type: Undefined
707 ft. Cross Street: BARHAM BLVD
Enf Type: SEL

MOBIL 18-F6E (Continued) **S106028168**

Funding:	Not reported
How Discovered:	OM
How Stopped:	Not reported
Leak Cause:	UNK
Leak Source:	UNK
Global Id:	T0603701216
Stop Date:	Not reported
Confirm Leak:	2000-10-26 00:00:00
Workplan:	2000-12-28 00:00:00
Prelim Assess:	2001-08-22 00:00:00
Pollution Char:	2003-01-28 00:00:00
Remed Plan:	Not reported
Remed Action:	Not reported
Monitoring:	Not reported
Close Date:	1996-12-03 00:00:00
Discover Date:	2000-11-06 00:00:00
Enforcement Dt:	Not reported
Release Date:	2001-07-03 00:00:00
Review Date:	2002-08-16 00:00:00
Enter Date:	1992-07-09 00:00:00
MTBE Date:	1965-01-01 00:00:00
GW Qualifier:	Not reported
Soil Qualifier:	Not reported
Max MTBE GW ppb:	260000
Max MTBE Soil ppb:	0.31
County:	19
Org Name:	Not reported
Reg Board:	Los Angeles Region
Status:	Pollution Characterization
Chemical:	Gasoline
Contact Person:	Not reported
Responsible Party:	ROBERT HAYS
RP Address:	3700 W. 190TH ST., TPT #2-4
Interim:	Not reported
Oversight Prgm:	LUST
MTBE Class:	B
MTBE Conc:	2
MTBE Fuel:	1
MTBE Tested:	MTBE Detected. Site tested for MTBE and MTBE detected
Staff:	DMB
Staff Initials:	PEJ
Lead Agency:	Regional Board
Local Agency:	19050
Hydr Basin #:	UNNAMED BASIN
Beneficial:	Not reported
Priority:	Not reported
Cleanup Fund Id:	Not reported
Work Suspended:	Not reported
Local Case #:	UNKNOWN
Case Number:	900680025A
Qty Leaked:	Not reported
Abate Method:	Not reported
Operator:	Not reported
Water System Name:	Not reported
Well Name:	Not reported
Distance To Lust:	0
Waste Discharge Global ID:	Not reported

MOBIL 18-F6E (Continued) **S106028168**

Waste Disch Assigned Name: Not reported
Summary: WELL ABANDONMENT WORK PLAN; 10/25/96 - SITE CLOSURE REQUEST; 10/07/96 - WELL ABANDONMENT REPORT; 01/02/97 - 4TH QUARTER PROGRESS REPORT; 12/28/00 FUEL DISPENSING COMPLEX SOIL SAMPLING

LUST:

Region:	4
Staff:	TCS
County:	Los Angeles
Local Agency:	19050
Lead Agency:	Regional Board
Case Type:	Undefined
Status:	Pollution Characterization
Substance:	Gasoline
Cross Street:	BARHAM BLVD
Global ID:	T0603701216
Enforcement Type:	SEL
Date Leak Discovered:	11/6/2000
Date Leak Record Entered:	7/9/1992
How Leak Discovered:	OM
How Leak Stopped:	Not reported
Cause of Leak:	UNK
Leak Source:	UNK
Date Leak Stopped:	Not reported
Date Confirmation Began:	10/26/2000
Operator:	Not reported
Water System:	Not reported
Well Name:	Not reported
Approx. Dist To Production Well (ft):	10025.285196694012470983635416
Abatement Method Used at the Site:	Not reported
Source of Cleanup Funding:	Not reported
Date Leak First Reported:	7/3/2001
Preliminary Site Assessment Workplan Submitted:	12/28/2000
Preliminary Site Assessment Began:	8/22/2001
Pollution Characterization Began:	1/28/2003
Remediation Plan Submitted:	Not reported
Remedial Action Underway:	Not reported
Post Remedial Action Monitoring Began:	Not reported
Date the Case was Closed:	12/3/1996
Date Case Last Changed on Database:	8/16/2002
Enforcement Action Date:	Not reported
Historical Max MTBE Date:	1/1/1965
Hist Max MTBE Conc in Groundwater:	260000
Hist Max MTBE Conc in Soil:	4000
Significant Interim Remedial Action Taken:	Not reported
GW Qualifier:	Not reported
Soil Qualifier:	=
Organization:	Not reported
Regional Board:	04
Owner Contact:	Not reported
Responsible Party:	PATRICK HAMMER
RP Address:	880 CANASIAS COURT, #220
Program:	LUST
Lat/Long:	34.1293047 / -1
Local Agency Staff:	PEJ
Beneficial Use:	Not reported
Priority:	Not reported

MOBIL 18-F6E (Continued) **S106028168**

Cleanup Fund Id: Not reported
Suspended: Not reported
Local Case No: UNKNOWN
Substance Quantity: Not reported
Assigned Name: Not reported
W Global ID: Not reported
Summary: WELL ABANDONMENT WORK PLAN; 10/25/96 - SITE CLOSURE REQUEST; 10/07/96 - WELL ABANDONMENT REPORT; 01/02/97 - 4TH QUARTER PROGRESS REPORT; 12/28/00 FUEL DISPENSING COMPLEX SOIL SAMPLING

O92 **WINDSOR CLEANERS** **RCRA-SQG** **1001085551**
West **10606 VENTURA BLVD** **FINDS** **CAR000008748**
1/2-1 **STUDIO CITY, CA 91604** **HAZNET**
3605 ft. **CLEANERS**
EMI

Site 6 of 6 in cluster O

Relative:
Lower

Actual:
598 ft.

RCRAInfo:
Owner: NICK BEZIKIAN
(818) 760-8606
EPA ID: CAR000008748

Contact: NICK BEZIKIAN
(818) 760-8606

Classification: Small Quantity Generator
TSDF Activities: Not reported

Violation Status: No violations found

FINDS:
Other Pertinent Environmental Activity Identified at Site

The NEI (National Emissions Inventory) database contains information on stationary and mobile sources that emit criteria air pollutants and their precursors, as well as hazardous air pollutants (HAPs).

RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

HAZNET:
Gepaid: CAL000124642
Contact: ZHUDEX ARUTUNYAN
Telephone: 0000000000
Facility Addr2: Not reported
Mailing Name: Not reported
Mailing Address: 10606 VENTURA BLVD
Mailing City,St,Zip: STUDIO CITY, CA 916043536
Gen County: Los Angeles
TSD EPA ID: CAD981397417
TSD County: Los Angeles

WINDSOR CLEANERS (Continued) **1001085551**

Waste Category: Halogenated solvents (chloroform, methyl chloride, perchloroethylene, etc.)
Disposal Method: Recycler
Tons: .2107
Facility County: Los Angeles

Gepaid: CAL000124642
Contact: THUDEX ARUTUNYAN
Telephone: 8187608606
Facility Addr2: Not reported
Mailing Name: Not reported
Mailing Address: 10606 VENTURA BL
Mailing City,St,Zip: STUDIO CITY, CA 916043536
Gen County: Los Angeles
TSD EPA ID: CAD008302903
TSD County: Los Angeles
Waste Category: Halogenated solvents (chloroform, methyl chloride, perchloroethylene, etc.)
Disposal Method: Not reported
Tons: Not reported
Facility County: Los Angeles

Gepaid: CAL000124642
Contact: THUDEX ARUTUNYAN
Telephone: 8187608606
Facility Addr2: Not reported
Mailing Name: Not reported
Mailing Address: 10606 VENTURA BL
Mailing City,St,Zip: STUDIO CITY, CA 916043536
Gen County: Los Angeles
TSD EPA ID: CAD008302903
TSD County: Los Angeles
Waste Category: Halogenated solvents (chloroform, methyl chloride, perchloroethylene, etc.)
Disposal Method: Recycler
Tons: 0.37
Facility County: Los Angeles

Gepaid: CAL000244754
Contact: VARTAN YAGUBYAN
Telephone: 8187608606
Facility Addr2: Not reported
Mailing Name: Not reported
Mailing Address: 10606 VENTURA BLVD
Mailing City,St,Zip: STUDIO CITY, CA 916040000
Gen County: Los Angeles
TSD EPA ID: CAD008302903
TSD County: Los Angeles
Waste Category: Halogenated solvents (chloroform, methyl chloride, perchloroethylene, etc.)
Disposal Method: Not reported
Tons: 0.15
Facility County: Los Angeles

Gepaid: CAL000244754
Contact: VARTAN YAGUBYAN
Telephone: 8187608606

WINDSOR CLEANERS (Continued) **1001085551**

Facility Addr2: Not reported
Mailing Name: Not reported
Mailing Address: 10606 VENTURA BLVD
Mailing City,St,Zip: STUDIO CITY, CA 916040000
Gen County: Los Angeles
TSD EPA ID: NVR000076158
TSD County: 99
Waste Category: Not reported
Disposal Method: Not reported
Tons: Not reported
Facility County: Not reported

Click this hyperlink while viewing on your computer to access
7 additional CA_HAZNET: record(s) in the EDR Site Report.

CLEANERS:
EPA Id: CAL000124642
NAICS Code: Not reported
NAICS Description: Not reported
SIC Code: Not reported
SIC Description: Not reported
Create Date: 08/31/1995
Facility Active: No
Inactive Date: 6/30/2001
Facility Addr2: Not reported
Mailing Name: Not reported
Mailing Address: 10606 VENTURA BL
Mailing Address 2: Not reported
Mailing State: CA
Mailing Zip: 916043536
Region Code: 3
Owner Name: ZHUDEX ARUTUNYAN
Owner Address: 10606 VENTURA BLVD
Owner Address 2: Not reported
Owner Telephone: 0000000000
Contact Name: THUDEX ARUTUNYAN
Contact Address: 10606 VENTURA BLVD
Contact Address 2: Not reported
Contact Telephone: 8187608606

EPA Id: CAR000008748
NAICS Code: Not reported
NAICS Description: Not reported
SIC Code: Not reported
SIC Description: Not reported
Create Date: 06/20/1996
Facility Active: No
Inactive Date: 6/30/1998
Facility Addr2: Not reported
Mailing Name: Not reported
Mailing Address: 10606 VENTURA BLVD
Mailing Address 2: Not reported
Mailing State: CA
Mailing Zip: 916040000
Region Code: 0
Owner Name: NICK BEZIKIAN
Owner Address: 10606 VENTURA BLVD

WINDSOR CLEANERS (Continued) **1001085551**

Owner Address 2: Not reported
Owner Telephone: 0000000000
Contact Name: NICK BEZIVIAN
Contact Address: INACT PER 98VQ FINAL NOTICE
Contact Address 2: - BATCH 4/27
Contact Telephone: --

EPA Id: CAL000244754
NAICS Code: 81232
NAICS Description: Drycleaning and Laundry Services (except Coin-Operated)
SIC Code: 7211
SIC Description: Power Laundries, Family and Commercial
Create Date: 01/30/2002
Facility Active: Yes
Inactive Date: Not reported
Facility Addr2: Not reported
Mailing Name: Not reported
Mailing Address: 10606 VENTURA BLVD
Mailing Address 2: Not reported
Mailing State: CA
Mailing Zip: 916040000
Region Code: 3
Owner Name: VARTAN YAGUBYAN
Owner Address: 10606 VENTURA BLVD
Owner Address 2: Not reported
Owner Telephone: 0000000000
Contact Name: VARTAN YAGUBYAN
Contact Address: 10606 VENTURA BLVD
Contact Address 2: Not reported
Contact Telephone: 8187608606

EPA Id: CAL000244754
NAICS Code: 81232
NAICS Description: Drycleaning and Laundry Services (except Coin-Operated)
SIC Code: 7212
SIC Description: Garment Pressing, and Agents for Laundries and Drycleaners
Create Date: 01/30/2002
Facility Active: Yes
Inactive Date: Not reported
Facility Addr2: Not reported
Mailing Name: Not reported
Mailing Address: 10606 VENTURA BLVD
Mailing Address 2: Not reported
Mailing State: CA
Mailing Zip: 916040000
Region Code: 3
Owner Name: VARTAN YAGUBYAN
Owner Address: 10606 VENTURA BLVD
Owner Address 2: Not reported
Owner Telephone: 0000000000
Contact Name: VARTAN YAGUBYAN
Contact Address: 10606 VENTURA BLVD
Contact Address 2: Not reported
Contact Telephone: 8187608606

EPA Id: CAL000244754
NAICS Code: 81232

WINDSOR CLEANERS (Continued) **1001085551**

NAICS Description: Drycleaning and Laundry Services (except Coin-Operated)
SIC Code: 7216
SIC Description: Drycleaning Plants, Except Rug Cleaning
Create Date: 01/30/2002
Facility Active: Yes
Inactive Date: Not reported
Facility Addr2: Not reported
Mailing Name: Not reported
Mailing Address: 10606 VENTURA BLVD
Mailing Address 2: Not reported
Mailing State: CA
Mailing Zip: 916040000
Region Code: 3
Owner Name: VARTAN YAGUBYAN
Owner Address: 10606 VENTURA BLVD
Owner Address 2: Not reported
Owner Telephone: 0000000000
Contact Name: VARTAN YAGUBYAN
Contact Address: 10606 VENTURA BLVD
Contact Address 2: Not reported
Contact Telephone: 8187608606

EPA Id: CAL000244754
NAICS Code: 81232
NAICS Description: Drycleaning and Laundry Services (except Coin-Operated)
SIC Code: 7219
SIC Description: Laundry and Garment Services, NEC (except diaper service and clothing alteration and repair)
Create Date: 01/30/2002
Facility Active: Yes
Inactive Date: Not reported
Facility Addr2: Not reported
Mailing Name: Not reported
Mailing Address: 10606 VENTURA BLVD
Mailing Address 2: Not reported
Mailing State: CA
Mailing Zip: 916040000
Region Code: 3
Owner Name: VARTAN YAGUBYAN
Owner Address: 10606 VENTURA BLVD
Owner Address 2: Not reported
Owner Telephone: 0000000000
Contact Name: VARTAN YAGUBYAN
Contact Address: 10606 VENTURA BLVD
Contact Address 2: Not reported
Contact Telephone: 8187608606

EMI:
Year: 1997
Carbon Monoxide Emissions Tons/Yr: 19
Air Basin: SC
Facility ID: 81535
Air District Name: SC
SIC Code: 7216
Air District Name: SOUTH COAST AQMD
Community Health Air Pollution Info System: Not reported
Consolidated Emission Reporting Rule: Not reported
Total Organic Hydrocarbon Gases Tons/Yr: 1

WINDSOR CLEANERS (Continued) **1001085551**

Reactive Organic Gases Tons/Yr:	0
Carbon Monoxide Emissions Tons/Yr:	0
NOX - Oxides of Nitrogen Tons/Yr:	0
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers & Smllr Tons/Yr:	0

Year:	1998
Carbon Monoxide Emissions Tons/Yr:	19
Air Basin:	SC
Facility ID:	81535
Air District Name:	SC
SIC Code:	7216
Air District Name:	SOUTH COAST AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	1
Reactive Organic Gases Tons/Yr:	0
Carbon Monoxide Emissions Tons/Yr:	0
NOX - Oxides of Nitrogen Tons/Yr:	0
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers & Smllr Tons/Yr:	0

Year:	1999
Carbon Monoxide Emissions Tons/Yr:	19
Air Basin:	SC
Facility ID:	81535
Air District Name:	SC
SIC Code:	7216
Air District Name:	SOUTH COAST AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	1
Reactive Organic Gases Tons/Yr:	0
Carbon Monoxide Emissions Tons/Yr:	0
NOX - Oxides of Nitrogen Tons/Yr:	0
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers & Smllr Tons/Yr:	0

Year:	2000
Carbon Monoxide Emissions Tons/Yr:	19
Air Basin:	SC
Facility ID:	81535
Air District Name:	SC
SIC Code:	7216
Air District Name:	SOUTH COAST AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	1
Reactive Organic Gases Tons/Yr:	0
Carbon Monoxide Emissions Tons/Yr:	0
NOX - Oxides of Nitrogen Tons/Yr:	0
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers & Smllr Tons/Yr:	0

WINDSOR CLEANERS (Continued) **1001085551**

Year:	2001
Carbon Monoxide Emissions Tons/Yr:	19
Air Basin:	SC
Facility ID:	81535
Air District Name:	SC
SIC Code:	7216
Air District Name:	SOUTH COAST AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	1
Reactive Organic Gases Tons/Yr:	0
Carbon Monoxide Emissions Tons/Yr:	0
NOX - Oxides of Nitrogen Tons/Yr:	0
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers & Smllr Tons/Yr:	0

93
ENE
1/2-1
3658 ft.

LA PARSHALL FLUME GAUGE BLDG **RCRA-SQG** **1000345273**
0 FOREST LAWN DR **FINDS** **CAD981986912**
LOS ANGELES, CA 90068

Relative:
Lower

Actual:
550 ft.

RCRAInfo:

Owner:	CITY OF LOS ANGELES (415) 555-1212
EPA ID:	CAD981986912
Contact:	ENVIRONMENTAL MANAGER (213) 485-7527
Classification:	Small Quantity Generator
TSDF Activities:	Not reported

Violation Status: No violations found

FINDS:

Other Pertinent Environmental Activity Identified at Site

RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

94
West
1/2-1
3734 ft.

LASER TECHNOLOGY INC
10624 VENTURA BLVD
NORTH HOLLYWOOD, CA 91604

RCRA-SQG
FINDS
HAZNET

1000473098
CAD982445835

Relative:
Lower

Actual:
596 ft.

RCRAInfo:
Owner: H B MCLAUGHLIN
(415) 555-1212
EPA ID: CAD982445835
Contact: ENVIRONMENTAL MANAGER
(818) 763-7091
Classification: Small Quantity Generator
TSDF Activities: Not reported

Violation Status: No violations found

FINDS:
Other Pertinent Environmental Activity Identified at Site

RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

HAZNET:

Gepaid:	CAD982445835
Contact:	H B MCLAUGHLIN
Telephone:	4155551212
Facility Addr2:	Not reported
Mailing Name:	Not reported
Mailing Address:	10624 VENTURA BLVD
Mailing City,St,Zip:	NORTH HOLLYWOOD, CA 916040000
Gen County:	Los Angeles
TSD EPA ID:	CAD099452708
TSD County:	Los Angeles
Waste Category:	Waste oil and mixed oil
Disposal Method:	Recycler
Tons:	.2293
Facility County:	Los Angeles

Gepaid:	CAD982445835
Contact:	H B MCLAUGHLIN
Telephone:	4155551212
Facility Addr2:	Not reported
Mailing Name:	Not reported
Mailing Address:	10624 VENTURA BLVD
Mailing City,St,Zip:	NORTH HOLLYWOOD, CA 916040000
Gen County:	Los Angeles
TSD EPA ID:	CAD000088252
TSD County:	Los Angeles
Waste Category:	Halogenated solvents (chloroform, methyl chloride, perchloroethylene, etc.)
Disposal Method:	Transfer Station

LASER TECHNOLOGY INC (Continued) **1000473098**

Tons: .0208
Facility County: Los Angeles

Gepaid: CAD982445835
Contact: H B MCLAUGHLIN
Telephone: 4155551212
Facility Addr2: Not reported
Mailing Name: Not reported
Mailing Address: 10624 VENTURA BLVD
Mailing City,St,Zip: NORTH HOLLYWOOD, CA 916040000
Gen County: Los Angeles
TSD EPA ID: CAD000088252
TSD County: Los Angeles
Waste Category: Not reported
Disposal Method: Transfer Station
Tons: .2625
Facility County: Los Angeles

Gepaid: CAD982445835
Contact: H B MCLAUGHLIN
Telephone: 4155551212
Facility Addr2: Not reported
Mailing Name: Not reported
Mailing Address: 10624 VENTURA BLVD
Mailing City,St,Zip: NORTH HOLLYWOOD, CA 916040000
Gen County: Los Angeles
TSD EPA ID: CAD000088252
TSD County: Los Angeles
Waste Category: Liquids with pH <UN-> 2 with metals
Disposal Method: Transfer Station
Tons: .1251
Facility County: Los Angeles

Gepaid: CAD982445835
Contact: H B MCLAUGHLIN
Telephone: 4155551212
Facility Addr2: Not reported
Mailing Name: Not reported
Mailing Address: 10624 VENTURA BLVD
Mailing City,St,Zip: NORTH HOLLYWOOD, CA 916040000
Gen County: Los Angeles
TSD EPA ID: CAD000088252
TSD County: Los Angeles
Waste Category: Other inorganic solid waste
Disposal Method: Transfer Station
Tons: .2650
Facility County: Los Angeles

Click this hyperlink while viewing on your computer to access
3 additional CA_HAZNET: record(s) in the EDR Site Report.

95
NW
1/2-1
3925 ft.

TOYOTA OF NORTH HOLLYWOOD
4100 LANKERSHIM
N HOLLYWOOD, CA 91602

RCRA-SQG
FINDS
HAZNET
CA FID UST
SWEEPS UST

1000342893
CAD982462947

Relative:
Lower

Actual:
571 ft.

RCRAInfo:
Owner: DON HANKEY
(818) 508-2900
EPA ID: CAD982462947

Contact: TOM FOLEY
(818) 508-2900

Classification: Small Quantity Generator
TSDF Activities: Not reported

Violation Status: No violations found

FINDS:
Other Pertinent Environmental Activity Identified at Site

California - Hazardous Waste Tracking System - Datamart

RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

HAZNET:
Gepaid: CAD983607136
Contact: DON HANKEY
Telephone: 8185082900
Facility Addr2: Not reported
Mailing Name: Not reported
Mailing Address: 4100 LANKERSHIM BLVD
Mailing City,St,Zip: NORTH HOLLYWOOD, CA 916021802
Gen County: Los Angeles
TSD EPA ID: CAD099452708
TSD County: Los Angeles
Waste Category: Oil/water separation sludge
Disposal Method: Transfer Station
Tons: 10.0288
Facility County: Los Angeles

CA FID UST:
Facility ID: 19015282
Regulated By: UTNKA
Regulated ID: Not reported
Cortese Code: Not reported
SIC Code: Not reported
Facility Phone: 2130000000
Mail To: Not reported

TOYOTA OF NORTH HOLLYWOOD (Continued) **1000342893**

Mailing Address: 4100 LANKERSHIM BLVD
Mailing Address 2: Not reported
Mailing City,St,Zip: NORTH HOLLYWOOD 916020000
Contact: Not reported
Contact Phone: Not reported
DUNs Number: Not reported
NPDES Number: Not reported
EPA ID: Not reported
Comments: Not reported
Status: Active

SWEEPS UST:
Status: Not reported
Comp Number: 7371
Number: Not reported
Board Of Equalization: Not reported
Ref Date: Not reported
Act Date: Not reported
Created Date: Not reported
Tank Status: Not reported
Owner Tank Id: Not reported
Swrcb Tank Id: Not reported
Actv Date: Not reported
Capacity: Not reported
Tank Use: Not reported
Stg: Not reported
Content: Not reported
Number Of Tanks: Not reported

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96 **SHELL BRANDED SERVICE STATION (FORMER)** **LUST** **S103286047**
SSE **3151 CAHUENGA BLVD W** **Cortese** **N/A**
1/2-1 **LOS ANGELES, CA 90068**
4144 ft.

Relative:
Lower

Actual:
727 ft.

LUST:
Region: STATE
Case Type: Other ground water affected
Cross Street: BARBARA COURT
Enf Type: SEL
Funding: Not reported
How Discovered: Not reported
How Stopped: Not reported
Leak Cause: Not reported
Leak Source: Not reported
Global Id: T0603701215
Stop Date: Not reported
Confirm Leak: Not reported
Workplan: 1997-03-21 00:00:00
Prelim Assess: 1997-10-31 00:00:00
Pollution Char: 2000-11-09 00:00:00
Remed Plan: 2001-02-15 00:00:00
Remed Action: 2003-10-14 00:00:00
Monitoring: 1993-06-17 00:00:00
Close Date: Not reported
Discover Date: Not reported
Enforcement Dt: 2001-04-18 00:00:00
Release Date: 1993-06-17 00:00:00

SHELL BRANDED SERVICE STATION (FORMER) (Continued) **S103286047**

Review Date: Not reported
Enter Date: 1995-03-25 00:00:00
MTBE Date: 1998-06-26 00:00:00
GW Qualifier: Not reported
Soil Qualifier: Not reported
Max MTBE GW ppb: 4,100
Max MTBE Soil ppb: Not reported
County: 19
Org Name: Not reported
Reg Board: Los Angeles Region
Status: Remedial action (cleanup) Underway
Chemical: Gasoline
Contact Person: Not reported
Responsible Party: MS. DEBORAH PRYOR
RP Address: P.O. BOX 7869
Interim: Not reported
Oversight Prgm: LUST
MTBE Class: *
MTBE Conc: 1
MTBE Fuel: 1
MTBE Tested: MTBE Detected. Site tested for MTBE and MTBE detected
Staff: DPP
Staff Initials: PEJ
Lead Agency: Regional Board
Local Agency: 19050
Hydr Basin #: UNNAMED BASIN
Beneficial: Not reported
Priority: Not reported
Cleanup Fund Id: Not reported
Work Suspended: Not reported
Local Case #: Not reported
Case Number: 900680016
Qty Leaked: Not reported
Abate Method: Not reported
Operator: Not reported
Water System Name: Not reported
Well Name: Not reported
Distance To Lust: 0
Waste Discharge Global ID: Not reported
Waste Disch Assigned Name: Not reported
Summary: Not reported

LUST:
Region: 4
Staff: DP
County: Los Angeles
Local Agency: 19050
Lead Agency: Regional Board
Case Type: Groundwater
Status: Remedial action (cleanup) Underway
Substance: Gasoline
Cross Street: BARBARA COURT
Global ID: T0603701215
Enforcement Type: SEL
Date Leak Discovered: Not reported
Date Leak Record Entered: 3/25/1995
How Leak Discovered: Not reported

SHELL BRANDED SERVICE STATION (FORMER) (Continued) **S103286047**

How Leak Stopped:	Not reported
Cause of Leak:	Not reported
Leak Source:	Not reported
Date Leak Stopped:	Not reported
Date Confirmation Began:	Not reported
Operator:	Not reported
Water System:	Not reported
Well Name:	Not reported
Approx. Dist To Production Well (ft):	10656.346235400384896058114806
Abatement Method Used at the Site:	Not reported
Source of Cleanup Funding:	Not reported
Date Leak First Reported:	6/17/1993
Preliminary Site Assessment Workplan Submitted:	3/21/1997
Preliminary Site Assessment Began:	10/31/1997
Pollution Characterization Began:	11/9/2000
Remediation Plan Submitted:	2/15/2001
Remedial Action Underway:	10/14/2003
Post Remedial Action Monitoring Began:	6/17/1993
Date the Case was Closed:	Not reported
Date Case Last Changed on Database:	9/10/2002
Enforcement Action Date:	4/18/2001
Historical Max MTBE Date:	6/26/1998
Hist Max MTBE Conc in Groundwater:	4100
Hist Max MTBE Conc in Soil:	1700
Significant Interim Remedial Action Taken:	Not reported
GW Qualifier:	Not reported
Soil Qualifier:	ND
Organization:	Not reported
Regional Board:	04
Owner Contact:	Not reported
Responsible Party:	MS. DEBORAH PRYOR
RP Address:	P.O. BOX 7869
Program:	LUST
Lat/Long:	34.1276988 / -1
Local Agency Staff:	PEJ
Beneficial Use:	Not reported
Priority:	Not reported
Cleanup Fund Id:	Not reported
Suspended:	Not reported
Local Case No:	Not reported
Substance Quantity:	Not reported
Assigned Name:	Not reported
W Global ID:	Not reported
Summary:	Not reported

Cortese:

Region:	CORTESE
Facility Addr2:	Not reported

97
West
> 1
6101 ft.

ALL STAR CLEANERS
11050 VENTURA BLVD.
STUDIO CITY, CA 91604

ENVIROSTOR

S106797590
N/A

Relative:
Lower

Actual:
582 ft.

ENVIROSTOR:

Site Type:	Evaluation
Site Type Detailed:	Evaluation
Acres:	Not reported
NPL:	NO
Regulatory Agencies:	NONE SPECIFIED
Lead Agency:	NONE SPECIFIED
Program Manager:	Not reported
Supervisor:	Referred - Not Assigned
Division Branch:	So Cal - Cypress
Facility ID:	19720042
Site Code:	Not reported
Assembly:	42
Senate:	23
Special Program:	Not reported
Status:	**Refer: 1248 Local Agency**
Status Date:	2003-11-20 00:00:00
Restricted Use:	NO
Funding:	Not Applicable
Latitude:	0
Longitude:	0
Alias Name:	19720042
Alias Type:	Envirostor ID Number
APN:	NONE SPECIFIED
APN Description:	Not reported
Comments:	Not reported
Completed Area Name:	Not reported
Completed Sub Area Name:	Not reported
Completed Document Type:	Not reported
Completed Date:	Not reported
Confirmed:	NONE SPECIFIED
Confirmed Description:	Not reported
Future Area Name:	Not reported
Future Sub Area Name:	Not reported
Future Document Type:	Not reported
Future Due Date:	Not reported
Media Affected:	NONE SPECIFIED
Media Affected Desc:	Not reported
Management Required:	NONE SPECIFIED
Management Required Desc:	Not reported
Potential:	NONE SPECIFIED
Potenital Description:	Not reported
Schedule Area Name:	Not reported
Schedule Sub Area Name:	Not reported
Schedule Document Type:	Not reported
Schedule Due Date:	Not reported
Schedule Revised Date:	Not reported
PastUse:	NONE SPECIFIED

ORPHAN SUMMARY

City	EDR ID	Site Name	Site Address	Zip	Database(s)
BURBANK	1003878774	DUNRITE METAL PLATING	3055 CALIFORNIA ST	91505	CERC-NFRAP
BURBANK	1007200710	MILLION AIR	2800 NORTH CLYBOURN AVE	91505	RCRA-SQG, HAZNET
BURBANK	S104733349	MULLER CORK CO	3096 CLYBOURN AVE B	91505	LOS ANGELES CO. HMS
BURBANK	S104733351	AUTO PILOT! ENTERPRISES	4524 CLYBOURN AVE 201	91505	LOS ANGELES CO. HMS
BURBANK	S108208284	GTC MANAGEMENT SERVICES INC.	2900 N CLYBOURN AVE	91505	HAZNET
BURBANK	1006282579	PRODUCT DEVELOPMENT SERVICES(PDS)	7309 W LAKESIDE DR	91505	FINDS, FTTS, HIST FTTS
BURBANK	S104828123	GRIFFIN STUDIOS	3815 W VERDUGO AVE B	91505	LOS ANGELES CO. HMS
HOLLYWOOD	S108207058	FORD THEATER	2580 CAHUENGA BLVD	90068	HAZNET
LOS ANGELES	S105840726	OXNARD/VICTORY ELEMENTARY SCHOOL NO. 10	LANKERSHIM BOULEVARD/BECK AVENUE	90068	SCH, ENVIROSTOR
LOS ANGELES COUNTY	S105642458	1X MCKESSON DRUG CO	2		HAZNET, LUST, CHMIRS
NORTH HOLLYWOOD	S104567869	ADVANCED DIGITAL SERVICES INC	948 CAHUENGA	91602	HAZNET
NORTH HOLLYWOOD	1005441323	ARCO FACILITY NO 09513	6800 LANKERSHIM	91602	RCRA-SQG, FINDS
NORTH HOLLYWOOD	S106928496	LAKESIDE GOLF CLUB	10340 VALLEY SPRING IN	91602	SWEEPS UST
STUDIO CITY	1004677842	DEPARTMENT OF TRANSPORTATION	RTE 101 FROM LAUREL CANYON TO	91602	FINDS, RCRA-LQG
STUDIO CITY	S105726508	DEPT OF TRANSPORTATION	RTE 101 FROM LAUREL CANYON TO	91602	HAZNET
UNIVERSAL CITY	1000229501	LA FIRE STATION 76	3111 N CAHUENGA BLVD	91608	RCRA-SQG, FINDS, HAZNET
UNIVERSAL CITY	S108087212	UNIVERSAL STUDIOS, INC (TRAM)	3900 N LANKERSHIM BLVD	91604	LUST
UNIVERSAL CITY	S108212573	LOS ANGELES COUNTY FIRE DEPARTMENT	3900 N LANKERSHIM - STATION 60	91608	HAZNET
UNIVERSAL CITY	S103679884	FUJI PHOTO FILM USA INC	SHERATON UNIVERSAL HOTEL 333		HAZNET
UNIVERSAL CITY	S108407622	SHERATON UNIVERSAL HOTEL	333 UNIVERSAL HOLLYWOOD DRIVE	91608	VCP, ENVIROSTOR
UNIVERSAL CITY	S108208877	HILTON HOTELS INC	555 UNIVERSAL HOLLYWOOD DR	91608	HAZNET
UNIVERSAL CITY	S108210086	JD BUILDERS	1000 UNIVERSAL CENTER DR	91608	HAZNET

EPA Waste Codes Addendum

Code	Description
D001	IGNITABLE HAZARDOUS WASTES ARE THOSE WASTES WHICH HAVE A FLASHPOINT OF LESS THAN 140 DEGREES FAHRENHEIT AS DETERMINED BY A PENSKY-MARTENS CLOSED CUP FLASH POINT TESTER. ANOTHER METHOD OF DETERMINING THE FLASH POINT OF A WASTE IS TO REVIEW THE MATERIAL SAFETY DATA SHEET, WHICH CAN BE OBTAINED FROM THE MANUFACTURER OR DISTRIBUTOR OF THE MATERIAL. LACQUER THINNER IS AN EXAMPLE OF A COMMONLY USED SOLVENT WHICH WOULD BE CONSIDERED AS IGNITABLE HAZARDOUS WASTE.
D002	A WASTE WHICH HAS A PH OF LESS THAN 2 OR GREATER THAN 12.5 IS CONSIDERED TO BE A CORROSIVE HAZARDOUS WASTE. SODIUM HYDROXIDE, A CAUSTIC SOLUTION WITH A HIGH PH, IS OFTEN USED BY INDUSTRIES TO CLEAN OR DEGREASE PARTS. HYDROCHLORIC ACID, A SOLUTION WITH A LOW PH, IS USED BY MANY INDUSTRIES TO CLEAN METAL PARTS PRIOR TO PAINTING. WHEN THESE CAUSTIC OR ACID SOLUTIONS BECOME CONTAMINATED AND MUST BE DISPOSED, THE WASTE WOULD BE A CORROSIVE HAZARDOUS WASTE.
D003	A MATERIAL IS CONSIDERED TO BE A REACTIVE HAZARDOUS WASTE IF IT IS NORMALLY UNSTABLE, REACTS VIOLENTLY WITH WATER, GENERATES TOXIC GASES WHEN EXPOSED TO WATER OR CORROSIVE MATERIALS, OR IF IT IS CAPABLE OF DETONATION OR EXPLOSION WHEN EXPOSED TO HEAT OR A FLAME. ONE EXAMPLE OF SUCH WASTE WOULD BY WASTE GUNPOWDER.
D007	CHROMIUM
D008	LEAD
D011	SILVER
D018	BENZENE
D039	TETRACHLOROETHYLENE
F002	THE FOLLOWING SPENT HALOGENATED SOLVENTS: TETRACHLOROETHYLENE, METHYLENE CHLORIDE, TRICHLOROETHYLENE, 1,1,1-TRICHLOROETHANE, CHLOROBENZENE, 1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE, ORTHO-DICHLOROBENZENE, TRICHLOROFLUOROMETHANE, AND 1,1,2-TRICHLOROETHANE; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE HALOGENATED SOLVENTS OR THOSE LISTED IN F001, F004, OR F005, AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.
F003	THE FOLLOWING SPENT NON-HALOGENATED SOLVENTS: XYLENE, ACETONE, ETHYL ACETATE, ETHYL BENZENE, ETHYL ETHER, METHYL ISOBUTYL KETONE, N-BUTYL ALCOHOL, CYCLOHEXANONE, AND METHANOL; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONLY THE ABOVE SPENT NON-HALOGENATED SOLVENTS; AND ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONE OR MORE OF THE ABOVE NON-HALOGENATED SOLVENTS, AND, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THOSE SOLVENTS LISTED IN F001, F002, F004, AND F005, AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.
F005	THE FOLLOWING SPENT NON-HALOGENATED SOLVENTS: TOLUENE, METHYL ETHYL KETONE,

EPA Waste Codes Addendum

Code	Description
	CARBON DISULFIDE, ISOBUTANOL, PYRIDINE, BENZENE, 2-ETHOXYETHANOL, AND 2-NITROPROPANE; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE NON-HALOGENATED SOLVENTS OR THOSE SOLVENTS LISTED IN F001, F002, OR F004; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

To maintain currency of the following federal and state databases, EDR contacts the appropriate governmental agency on a monthly or quarterly basis, as required.

Number of Days to Update: Provides confirmation that EDR is reporting records that have been updated within 90 days from the date the government agency made the information available to the public.

FEDERAL RECORDS

NPL: National Priority List

National Priorities List (Superfund). The NPL is a subset of CERCLIS and identifies over 1,200 sites for priority cleanup under the Superfund Program. NPL sites may encompass relatively large areas. As such, EDR provides polygon coverage for over 1,000 NPL site boundaries produced by EPA's Environmental Photographic Interpretation Center (EPIC) and regional EPA offices.

Date of Government Version: 04/20/2007
Date Data Arrived at EDR: 05/03/2007
Date Made Active in Reports: 07/05/2007
Number of Days to Update: 63

Source: EPA
Telephone: N/A
Last EDR Contact: 05/03/2007
Next Scheduled EDR Contact: 07/30/2007
Data Release Frequency: Quarterly

NPL Site Boundaries

Sources:

EPA's Environmental Photographic Interpretation Center (EPIC)
Telephone: 202-564-7333

EPA Region 1
Telephone 617-918-1143

EPA Region 3
Telephone 215-814-5418

EPA Region 4
Telephone 404-562-8033

EPA Region 5
Telephone 312-886-6686

EPA Region 10
Telephone 206-553-8665

EPA Region 6
Telephone: 214-655-6659

EPA Region 7
Telephone: 913-551-7247

EPA Region 8
Telephone: 303-312-6774

EPA Region 9
Telephone: 415-947-4246

Proposed NPL: Proposed National Priority List Sites

A site that has been proposed for listing on the National Priorities List through the issuance of a proposed rule in the Federal Register. EPA then accepts public comments on the site, responds to the comments, and places on the NPL those sites that continue to meet the requirements for listing.

Date of Government Version: 04/20/2007
Date Data Arrived at EDR: 05/03/2007
Date Made Active in Reports: 07/05/2007
Number of Days to Update: 63

Source: EPA
Telephone: N/A
Last EDR Contact: 05/03/2007
Next Scheduled EDR Contact: 07/30/2007
Data Release Frequency: Quarterly

DELISTED NPL: National Priority List Deletions

The National Oil and Hazardous Substances Pollution Contingency Plan (NCP) establishes the criteria that the EPA uses to delete sites from the NPL. In accordance with 40 CFR 300.425.(e), sites may be deleted from the NPL where no further response is appropriate.

Date of Government Version: 04/20/2007
Date Data Arrived at EDR: 05/03/2007
Date Made Active in Reports: 06/25/2007
Number of Days to Update: 53

Source: EPA
Telephone: N/A
Last EDR Contact: 05/03/2007
Next Scheduled EDR Contact: 07/30/2007
Data Release Frequency: Quarterly

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

NPL LIENS: Federal Superfund Liens

Federal Superfund Liens. Under the authority granted the USEPA by CERCLA of 1980, the USEPA has the authority to file liens against real property in order to recover remedial action expenditures or when the property owner received notification of potential liability. USEPA compiles a listing of filed notices of Superfund Liens.

Date of Government Version: 10/15/1991
Date Data Arrived at EDR: 02/02/1994
Date Made Active in Reports: 03/30/1994
Number of Days to Update: 56

Source: EPA
Telephone: 202-564-4267
Last EDR Contact: 05/21/2007
Next Scheduled EDR Contact: 08/20/2007
Data Release Frequency: No Update Planned

CERCLIS: Comprehensive Environmental Response, Compensation, and Liability Information System

CERCLIS contains data on potentially hazardous waste sites that have been reported to the USEPA by states, municipalities, private companies and private persons, pursuant to Section 103 of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). CERCLIS contains sites which are either proposed to or on the National Priorities List (NPL) and sites which are in the screening and assessment phase for possible inclusion on the NPL.

Date of Government Version: 02/27/2007
Date Data Arrived at EDR: 03/21/2007
Date Made Active in Reports: 04/27/2007
Number of Days to Update: 37

Source: EPA
Telephone: 703-412-9810
Last EDR Contact: 06/20/2007
Next Scheduled EDR Contact: 09/17/2007
Data Release Frequency: Quarterly

CERCLIS-NFRAP: CERCLIS No Further Remedial Action Planned

Archived sites are sites that have been removed and archived from the inventory of CERCLIS sites. Archived status indicates that, to the best of EPA's knowledge, assessment at a site has been completed and that EPA has determined no further steps will be taken to list this site on the National Priorities List (NPL), unless information indicates this decision was not appropriate or other considerations require a recommendation for listing at a later time. This decision does not necessarily mean that there is no hazard associated with a given site; it only means that, based upon available information, the location is not judged to be a potential NPL site.

Date of Government Version: 03/21/2007
Date Data Arrived at EDR: 04/27/2007
Date Made Active in Reports: 05/25/2007
Number of Days to Update: 28

Source: EPA
Telephone: 703-412-9810
Last EDR Contact: 06/15/2007
Next Scheduled EDR Contact: 09/17/2007
Data Release Frequency: Quarterly

CORRACTS: Corrective Action Report

CORRACTS identifies hazardous waste handlers with RCRA corrective action activity.

Date of Government Version: 03/14/2007
Date Data Arrived at EDR: 03/20/2007
Date Made Active in Reports: 04/27/2007
Number of Days to Update: 38

Source: EPA
Telephone: 800-424-9346
Last EDR Contact: 06/04/2007
Next Scheduled EDR Contact: 09/03/2007
Data Release Frequency: Quarterly

RCRA: Resource Conservation and Recovery Act Information

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. RCRAInfo replaces the data recording and reporting abilities of the Resource Conservation and Recovery Information System (RCRIS). The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Conditionally exempt small quantity generators (CESQGs) generate less than 100 kg of hazardous waste, or less than 1 kg of acutely hazardous waste per month. Small quantity generators (SQGs) generate between 100 kg and 1,000 kg of hazardous waste per month. Large quantity generators (LQGs) generate over 1,000 kilograms (kg) of hazardous waste, or over 1 kg of acutely hazardous waste per month. Transporters are individuals or entities that move hazardous waste from the generator off-site to a facility that can recycle, treat, store, or dispose of the waste. TSDFs treat, store, or dispose of the waste.

Date of Government Version: 06/13/2006
Date Data Arrived at EDR: 06/28/2006
Date Made Active in Reports: 08/23/2006
Number of Days to Update: 56

Source: EPA
Telephone: (415) 495-8895
Last EDR Contact: 07/16/2007
Next Scheduled EDR Contact: 09/17/2007
Data Release Frequency: Quarterly

ERNS: Emergency Response Notification System

Emergency Response Notification System. ERNS records and stores information on reported releases of oil and hazardous substances.

Date of Government Version: 12/31/2006
Date Data Arrived at EDR: 01/24/2007
Date Made Active in Reports: 03/12/2007
Number of Days to Update: 47

Source: National Response Center, United States Coast Guard
Telephone: 202-267-2180
Last EDR Contact: 04/24/2007
Next Scheduled EDR Contact: 07/23/2007
Data Release Frequency: Annually

HMIRS: Hazardous Materials Information Reporting System

Hazardous Materials Incident Report System. HMIRS contains hazardous material spill incidents reported to DOT.

Date of Government Version: 03/05/2007
Date Data Arrived at EDR: 04/17/2007
Date Made Active in Reports: 05/14/2007
Number of Days to Update: 27

Source: U.S. Department of Transportation
Telephone: 202-366-4555
Last EDR Contact: 07/18/2007
Next Scheduled EDR Contact: 10/15/2007
Data Release Frequency: Annually

US ENG CONTROLS: Engineering Controls Sites List

A listing of sites with engineering controls in place. Engineering controls include various forms of caps, building foundations, liners, and treatment methods to create pathway elimination for regulated substances to enter environmental media or effect human health.

Date of Government Version: 04/20/2007
Date Data Arrived at EDR: 04/26/2007
Date Made Active in Reports: 05/25/2007
Number of Days to Update: 29

Source: Environmental Protection Agency
Telephone: 703-603-8905
Last EDR Contact: 07/02/2007
Next Scheduled EDR Contact: 10/01/2007
Data Release Frequency: Varies

US INST CONTROL: Sites with Institutional Controls

A listing of sites with institutional controls in place. Institutional controls include administrative measures, such as groundwater use restrictions, construction restrictions, property use restrictions, and post remediation care requirements intended to prevent exposure to contaminants remaining on site. Deed restrictions are generally required as part of the institutional controls.

Date of Government Version: 04/20/2007
Date Data Arrived at EDR: 04/26/2007
Date Made Active in Reports: 05/25/2007
Number of Days to Update: 29

Source: Environmental Protection Agency
Telephone: 703-603-8905
Last EDR Contact: 07/02/2007
Next Scheduled EDR Contact: 10/01/2007
Data Release Frequency: Varies

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

DOD: Department of Defense Sites

This data set consists of federally owned or administered lands, administered by the Department of Defense, that have any area equal to or greater than 640 acres of the United States, Puerto Rico, and the U.S. Virgin Islands.

Date of Government Version: 12/31/2005
Date Data Arrived at EDR: 11/10/2006
Date Made Active in Reports: 01/11/2007
Number of Days to Update: 62

Source: USGS
Telephone: 703-692-8801
Last EDR Contact: 05/11/2007
Next Scheduled EDR Contact: 08/06/2007
Data Release Frequency: Semi-Annually

FUDS: Formerly Used Defense Sites

The listing includes locations of Formerly Used Defense Sites properties where the US Army Corps of Engineers is actively working or will take necessary cleanup actions.

Date of Government Version: 12/31/2005
Date Data Arrived at EDR: 09/20/2006
Date Made Active in Reports: 11/22/2006
Number of Days to Update: 63

Source: U.S. Army Corps of Engineers
Telephone: 202-528-4285
Last EDR Contact: 07/02/2007
Next Scheduled EDR Contact: 10/01/2007
Data Release Frequency: Varies

US BROWNFIELDS: A Listing of Brownfields Sites

Included in the listing are brownfields properties addresses by Cooperative Agreement Recipients and brownfields properties addressed by Targeted Brownfields Assessments. Targeted Brownfields Assessments-EPA's Targeted Brownfields Assessments (TBA) program is designed to help states, tribes, and municipalities--especially those without EPA Brownfields Assessment Demonstration Pilots--minimize the uncertainties of contamination often associated with brownfields. Under the TBA program, EPA provides funding and/or technical assistance for environmental assessments at brownfields sites throughout the country. Targeted Brownfields Assessments supplement and work with other efforts under EPA's Brownfields Initiative to promote cleanup and redevelopment of brownfields. Cooperative Agreement Recipients-States, political subdivisions, territories, and Indian tribes become Brownfields Cleanup Revolving Loan Fund (BCRLF) cooperative agreement recipients when they enter into BCRLF cooperative agreements with the U.S. EPA. EPA selects BCRLF cooperative agreement recipients based on a proposal and application process. BCRLF cooperative agreement recipients must use EPA funds provided through BCRLF cooperative agreement for specified brownfields-related cleanup activities.

Date of Government Version: 04/04/2007
Date Data Arrived at EDR: 04/04/2007
Date Made Active in Reports: 05/25/2007
Number of Days to Update: 51

Source: Environmental Protection Agency
Telephone: 202-566-2777
Last EDR Contact: 06/11/2007
Next Scheduled EDR Contact: 09/10/2007
Data Release Frequency: Semi-Annually

CONSENT: Superfund (CERCLA) Consent Decrees

Major legal settlements that establish responsibility and standards for cleanup at NPL (Superfund) sites. Released periodically by United States District Courts after settlement by parties to litigation matters.

Date of Government Version: 08/23/2006
Date Data Arrived at EDR: 03/06/2007
Date Made Active in Reports: 04/10/2007
Number of Days to Update: 35

Source: Department of Justice, Consent Decree Library
Telephone: Varies
Last EDR Contact: 04/23/2007
Next Scheduled EDR Contact: 07/23/2007
Data Release Frequency: Varies

ROD: Records Of Decision

Record of Decision. ROD documents mandate a permanent remedy at an NPL (Superfund) site containing technical and health information to aid in the cleanup.

Date of Government Version: 03/27/2007
Date Data Arrived at EDR: 03/27/2007
Date Made Active in Reports: 04/27/2007
Number of Days to Update: 31

Source: EPA
Telephone: 703-416-0223
Last EDR Contact: 07/02/2007
Next Scheduled EDR Contact: 10/01/2007
Data Release Frequency: Annually

UMTRA: Uranium Mill Tailings Sites

Uranium ore was mined by private companies for federal government use in national defense programs. When the mills shut down, large piles of the sand-like material (mill tailings) remain after uranium has been extracted from the ore. Levels of human exposure to radioactive materials from the piles are low; however, in some cases tailings were used as construction materials before the potential health hazards of the tailings were recognized.

Date of Government Version: 12/31/2005
Date Data Arrived at EDR: 11/08/2006
Date Made Active in Reports: 01/29/2007
Number of Days to Update: 82

Source: Department of Energy
Telephone: 505-845-0011
Last EDR Contact: 07/05/2007
Next Scheduled EDR Contact: 09/17/2007
Data Release Frequency: Varies

ODI: Open Dump Inventory

An open dump is defined as a disposal facility that does not comply with one or more of the Part 257 or Part 258 Subtitle D Criteria.

Date of Government Version: 06/30/1985
Date Data Arrived at EDR: 08/09/2004
Date Made Active in Reports: 09/17/2004
Number of Days to Update: 39

Source: Environmental Protection Agency
Telephone: 800-424-9346
Last EDR Contact: 06/09/2004
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

TRIS: Toxic Chemical Release Inventory System

Toxic Release Inventory System. TRIS identifies facilities which release toxic chemicals to the air, water and land in reportable quantities under SARA Title III Section 313.

Date of Government Version: 12/31/2005
Date Data Arrived at EDR: 04/27/2007
Date Made Active in Reports: 07/05/2007
Number of Days to Update: 69

Source: EPA
Telephone: 202-566-0250
Last EDR Contact: 06/19/2007
Next Scheduled EDR Contact: 09/17/2007
Data Release Frequency: Annually

TSCA: Toxic Substances Control Act

Toxic Substances Control Act. TSCA identifies manufacturers and importers of chemical substances included on the TSCA Chemical Substance Inventory list. It includes data on the production volume of these substances by plant site.

Date of Government Version: 12/31/2002
Date Data Arrived at EDR: 04/14/2006
Date Made Active in Reports: 05/30/2006
Number of Days to Update: 46

Source: EPA
Telephone: 202-260-5521
Last EDR Contact: 07/16/2007
Next Scheduled EDR Contact: 10/15/2007
Data Release Frequency: Every 4 Years

FTTS: FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)

FTTS tracks administrative cases and pesticide enforcement actions and compliance activities related to FIFRA, TSCA and EPCRA (Emergency Planning and Community Right-to-Know Act). To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 04/13/2007
Date Data Arrived at EDR: 04/25/2007
Date Made Active in Reports: 07/05/2007
Number of Days to Update: 71

Source: EPA/Office of Prevention, Pesticides and Toxic Substances
Telephone: 202-566-1667
Last EDR Contact: 06/15/2007
Next Scheduled EDR Contact: 09/17/2007
Data Release Frequency: Quarterly

FTTS INSP: FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)

A listing of FIFRA/TSCA Tracking System (FTTS) inspections and enforcements.

Date of Government Version: 04/13/2007
Date Data Arrived at EDR: 04/25/2007
Date Made Active in Reports: 07/05/2007
Number of Days to Update: 71

Source: EPA
Telephone: 202-566-1667
Last EDR Contact: 06/15/2007
Next Scheduled EDR Contact: 09/17/2007
Data Release Frequency: Quarterly

SSTS: Section 7 Tracking Systems

Section 7 of the Federal Insecticide, Fungicide and Rodenticide Act, as amended (92 Stat. 829) requires all registered pesticide-producing establishments to submit a report to the Environmental Protection Agency by March 1st each year. Each establishment must report the types and amounts of pesticides, active ingredients and devices being produced, and those having been produced and sold or distributed in the past year.

Date of Government Version: 12/31/2005
Date Data Arrived at EDR: 03/13/2007
Date Made Active in Reports: 04/27/2007
Number of Days to Update: 45

Source: EPA
Telephone: 202-564-4203
Last EDR Contact: 07/16/2007
Next Scheduled EDR Contact: 10/15/2007
Data Release Frequency: Annually

LIENS 2: CERCLA Lien Information

A Federal CERCLA ('Superfund') lien can exist by operation of law at any site or property at which EPA has spent Superfund monies. These monies are spent to investigate and address releases and threatened releases of contamination. CERCLIS provides information as to the identity of these sites and properties.

Date of Government Version: 03/08/2007
Date Data Arrived at EDR: 04/12/2007
Date Made Active in Reports: 05/14/2007
Number of Days to Update: 32

Source: Environmental Protection Agency
Telephone: 202-564-6023
Last EDR Contact: 05/21/2007
Next Scheduled EDR Contact: 08/20/2007
Data Release Frequency: Varies

RADINFO: Radiation Information Database

The Radiation Information Database (RADINFO) contains information about facilities that are regulated by U.S. Environmental Protection Agency (EPA) regulations for radiation and radioactivity.

Date of Government Version: 05/01/2007
Date Data Arrived at EDR: 05/03/2007
Date Made Active in Reports: 05/25/2007
Number of Days to Update: 22

Source: Environmental Protection Agency
Telephone: 202-343-9775
Last EDR Contact: 05/03/2007
Next Scheduled EDR Contact: 07/30/2007
Data Release Frequency: Quarterly

CDL: Clandestine Drug Labs

A listing of clandestine drug lab locations. The U.S. Department of Justice ("the Department") provides this web site as a public service. It contains addresses of some locations where law enforcement agencies reported they found chemicals or other items that indicated the presence of either clandestine drug laboratories or dumpsites. In most cases, the source of the entries is not the Department, and the Department has not verified the entry and does not guarantee its accuracy. Members of the public must verify the accuracy of all entries by, for example, contacting local law enforcement and local health departments.

Date of Government Version: 12/01/2006
Date Data Arrived at EDR: 01/08/2007
Date Made Active in Reports: 01/11/2007
Number of Days to Update: 3

Source: Drug Enforcement Administration
Telephone: 202-307-1000
Last EDR Contact: 06/29/2007
Next Scheduled EDR Contact: 09/24/2007
Data Release Frequency: Quarterly

HIST FTTS: FIFRA/TSCA Tracking System Administrative Case Listing

A complete administrative case listing from the FIFRA/TSCA Tracking System (FTTS) for all ten EPA regions. The information was obtained from the National Compliance Database (NCDB). NCDB supports the implementation of FIFRA (Federal Insecticide, Fungicide, and Rodenticide Act) and TSCA (Toxic Substances Control Act). Some EPA regions are now closing out records. Because of that, and the fact that some EPA regions are not providing EPA Headquarters with updated records, it was decided to create a HIST FTTS database. It included records that may not be included in the newer FTTS database updates. This database is no longer updated.

Date of Government Version: 10/19/2006
Date Data Arrived at EDR: 03/01/2007
Date Made Active in Reports: 04/10/2007
Number of Days to Update: 40

Source: Environmental Protection Agency
Telephone: 202-564-2501
Last EDR Contact: 06/15/2007
Next Scheduled EDR Contact: 09/17/2007
Data Release Frequency: No Update Planned

ICIS: Integrated Compliance Information System

The Integrated Compliance Information System (ICIS) supports the information needs of the national enforcement and compliance program as well as the unique needs of the National Pollutant Discharge Elimination System (NPDES) program.

Date of Government Version: 02/21/2007
Date Data Arrived at EDR: 04/03/2007
Date Made Active in Reports: 05/14/2007
Number of Days to Update: 41

Source: Environmental Protection Agency
Telephone: 202-564-5088
Last EDR Contact: 06/22/2007
Next Scheduled EDR Contact: 07/16/2007
Data Release Frequency: Quarterly

LUCIS: Land Use Control Information System

LUCIS contains records of land use control information pertaining to the former Navy Base Realignment and Closure properties.

Date of Government Version: 12/09/2005
Date Data Arrived at EDR: 12/11/2006
Date Made Active in Reports: 01/11/2007
Number of Days to Update: 31

Source: Department of the Navy
Telephone: 843-820-7326
Last EDR Contact: 06/11/2007
Next Scheduled EDR Contact: 09/10/2007
Data Release Frequency: Varies

DOT OPS: Incident and Accident Data

Department of Transporation, Office of Pipeline Safety Incident and Accident data.

Date of Government Version: 05/14/2007
Date Data Arrived at EDR: 05/30/2007
Date Made Active in Reports: 07/05/2007
Number of Days to Update: 36

Source: Department of Transporation, Office of Pipeline Safety
Telephone: 202-366-4595
Last EDR Contact: 05/30/2007
Next Scheduled EDR Contact: 08/27/2007
Data Release Frequency: Varies

PADS: PCB Activity Database System

PCB Activity Database. PADS Identifies generators, transporters, commercial storers and/or brokers and disposers of PCB's who are required to notify the EPA of such activities.

Date of Government Version: 10/17/2006
Date Data Arrived at EDR: 11/29/2006
Date Made Active in Reports: 01/11/2007
Number of Days to Update: 43

Source: EPA
Telephone: 202-566-0500
Last EDR Contact: 06/08/2007
Next Scheduled EDR Contact: 08/06/2007
Data Release Frequency: Annually

MLTS: Material Licensing Tracking System

MLTS is maintained by the Nuclear Regulatory Commission and contains a list of approximately 8,100 sites which possess or use radioactive materials and which are subject to NRC licensing requirements. To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 04/05/2007
Date Data Arrived at EDR: 04/25/2007
Date Made Active in Reports: 05/25/2007
Number of Days to Update: 30

Source: Nuclear Regulatory Commission
Telephone: 301-415-7169
Last EDR Contact: 07/02/2007
Next Scheduled EDR Contact: 10/01/2007
Data Release Frequency: Quarterly

MINES: Mines Master Index File

Contains all mine identification numbers issued for mines active or opened since 1971. The data also includes violation information.

Date of Government Version: 02/06/2007
Date Data Arrived at EDR: 03/28/2007
Date Made Active in Reports: 05/14/2007
Number of Days to Update: 47

Source: Department of Labor, Mine Safety and Health Administration
Telephone: 303-231-5959
Last EDR Contact: 06/28/2007
Next Scheduled EDR Contact: 09/24/2007
Data Release Frequency: Semi-Annually

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

FINDS: Facility Index System/Facility Registry System

Facility Index System. FINDS contains both facility information and 'pointers' to other sources that contain more detail. EDR includes the following FINDS databases in this report: PCS (Permit Compliance System), AIRS (Aerometric Information Retrieval System), DOCKET (Enforcement Docket used to manage and track information on civil judicial enforcement cases for all environmental statutes), FURS (Federal Underground Injection Control), C-DOCKET (Criminal Docket System used to track criminal enforcement actions for all environmental statutes), FFIS (Federal Facilities Information System), STATE (State Environmental Laws and Statutes), and PADS (PCB Activity Data System).

Date of Government Version: 04/12/2007
Date Data Arrived at EDR: 05/17/2007
Date Made Active in Reports: 07/05/2007
Number of Days to Update: 49

Source: EPA
Telephone: (415) 947-8000
Last EDR Contact: 07/02/2007
Next Scheduled EDR Contact: 10/01/2007
Data Release Frequency: Quarterly

RAATS: RCRA Administrative Action Tracking System

RCRA Administration Action Tracking System. RAATS contains records based on enforcement actions issued under RCRA pertaining to major violators and includes administrative and civil actions brought by the EPA. For administration actions after September 30, 1995, data entry in the RAATS database was discontinued. EPA will retain a copy of the database for historical records. It was necessary to terminate RAATS because a decrease in agency resources made it impossible to continue to update the information contained in the database.

Date of Government Version: 04/17/1995
Date Data Arrived at EDR: 07/03/1995
Date Made Active in Reports: 08/07/1995
Number of Days to Update: 35

Source: EPA
Telephone: 202-564-4104
Last EDR Contact: 06/04/2007
Next Scheduled EDR Contact: 09/03/2007
Data Release Frequency: No Update Planned

BRS: Biennial Reporting System

The Biennial Reporting System is a national system administered by the EPA that collects data on the generation and management of hazardous waste. BRS captures detailed data from two groups: Large Quantity Generators (LQG) and Treatment, Storage, and Disposal Facilities.

Date of Government Version: 12/31/2005
Date Data Arrived at EDR: 03/06/2007
Date Made Active in Reports: 04/13/2007
Number of Days to Update: 38

Source: EPA/NTIS
Telephone: 800-424-9346
Last EDR Contact: 06/12/2007
Next Scheduled EDR Contact: 09/10/2007
Data Release Frequency: Biennially

USGS WATER WELLS: National Water Information System (NWIS)

This database consists of well records in the United States. Available site descriptive information includes well location information (latitude and longitude, well depth, site use, water use, and aquifer).

Date of Government Version: 03/25/2005
Date Data Arrived at EDR: 03/25/2005
Date Made Active in Reports: N/A
Number of Days to Update: 0

Source: USGS
Telephone: N/A
Last EDR Contact: 03/25/2005
Next Scheduled EDR Contact: N/A
Data Release Frequency: N/A

PWS: Public Water System Data

This Safe Drinking Water Information System (SDWIS) file contains public water systems name and address, population served and the primary source of water

Date of Government Version: 02/24/2000
Date Data Arrived at EDR: 04/27/2005
Date Made Active in Reports: N/A
Number of Days to Update: 0

Source: EPA
Telephone: N/A
Last EDR Contact: 05/21/2007
Next Scheduled EDR Contact: 08/20/2007
Data Release Frequency: N/A

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

STATE AND LOCAL RECORDS

HIST CAL-SITES: Calsites Database

The Calsites database contains potential or confirmed hazardous substance release properties. In 1996, California EPA reevaluated and significantly reduced the number of sites in the Calsites database. No longer updated by the state agency. It has been replaced by ENVIROSTOR.

Date of Government Version: 08/08/2005
Date Data Arrived at EDR: 08/03/2006
Date Made Active in Reports: 08/24/2006
Number of Days to Update: 21

Source: Department of Toxic Substance Control
Telephone: 916-323-3400
Last EDR Contact: 05/25/2007
Next Scheduled EDR Contact: 08/27/2007
Data Release Frequency: No Update Planned

CA BOND EXP. PLAN: Bond Expenditure Plan

Department of Health Services developed a site-specific expenditure plan as the basis for an appropriation of Hazardous Substance Cleanup Bond Act funds. It is not updated.

Date of Government Version: 01/01/1989
Date Data Arrived at EDR: 07/27/1994
Date Made Active in Reports: 08/02/1994
Number of Days to Update: 6

Source: Department of Health Services
Telephone: 916-255-2118
Last EDR Contact: 05/31/1994
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

SCH: School Property Evaluation Program

This category contains proposed and existing school sites that are being evaluated by DTSC for possible hazardous materials contamination. In some cases, these properties may be listed in the CalSites category depending on the level of threat to public health and safety or the environment they pose.

Date of Government Version: 05/29/2007
Date Data Arrived at EDR: 05/30/2007
Date Made Active in Reports: 06/29/2007
Number of Days to Update: 30

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 05/30/2007
Next Scheduled EDR Contact: 08/27/2007
Data Release Frequency: Quarterly

TOXIC PITS: Toxic Pits Cleanup Act Sites

Toxic PITS Cleanup Act Sites. TOXIC PITS identifies sites suspected of containing hazardous substances where cleanup has not yet been completed.

Date of Government Version: 07/01/1995
Date Data Arrived at EDR: 08/30/1995
Date Made Active in Reports: 09/26/1995
Number of Days to Update: 27

Source: State Water Resources Control Board
Telephone: 916-227-4364
Last EDR Contact: 04/30/2007
Next Scheduled EDR Contact: 07/30/2007
Data Release Frequency: No Update Planned

SWF/LF (SWIS): Solid Waste Information System

Active, Closed and Inactive Landfills. SWF/LF records typically contain an inve ntory of solid waste disposal facilities or landfills. These may be active or i nactive facilities or open dumps that failed to meet RCRA Section 4004 criteria for solid waste landfills or disposal sites.

Date of Government Version: 06/11/2007
Date Data Arrived at EDR: 06/13/2007
Date Made Active in Reports: 06/29/2007
Number of Days to Update: 16

Source: Integrated Waste Management Board
Telephone: 916-341-6320
Last EDR Contact: 06/13/2007
Next Scheduled EDR Contact: 09/10/2007
Data Release Frequency: Quarterly

CA WDS: Waste Discharge System

Sites which have been issued waste discharge requirements.

Date of Government Version: 06/19/2007
Date Data Arrived at EDR: 06/20/2007
Date Made Active in Reports: 06/29/2007
Number of Days to Update: 9

Source: State Water Resources Control Board
Telephone: 916-341-5227
Last EDR Contact: 06/20/2007
Next Scheduled EDR Contact: 09/17/2007
Data Release Frequency: Quarterly

WMUDS/SWAT: Waste Management Unit Database

Waste Management Unit Database System. WMUDS is used by the State Water Resources Control Board staff and the Regional Water Quality Control Boards for program tracking and inventory of waste management units. WMUDS is composed of the following databases: Facility Information, Scheduled Inspections Information, Waste Management Unit Information, SWAT Program Information, SWAT Report Summary Information, SWAT Report Summary Data, Chapter 15 (formerly Subchapter 15) Information, Chapter 15 Monitoring Parameters, TPCA Program Information, RCRA Program Information, Closure Information, and Interested Parties Information.

Date of Government Version: 04/01/2000
Date Data Arrived at EDR: 04/10/2000
Date Made Active in Reports: 05/10/2000
Number of Days to Update: 30

Source: State Water Resources Control Board
Telephone: 916-227-4448
Last EDR Contact: 06/04/2007
Next Scheduled EDR Contact: 09/03/2007
Data Release Frequency: Quarterly

CORTESE: "Cortese" Hazardous Waste & Substances Sites List

The sites for the list are designated by the State Water Resource Control Board (LUST), the Integrated Waste Board (SWF/LS), and the Department of Toxic Substances Control (Cal-Sites). This listing is no longer updated by the state agency.

Date of Government Version: 04/01/2001
Date Data Arrived at EDR: 05/29/2001
Date Made Active in Reports: 07/26/2001
Number of Days to Update: 58

Source: CAL EPA/Office of Emergency Information
Telephone: 916-323-3400
Last EDR Contact: 04/23/2007
Next Scheduled EDR Contact: 07/23/2007
Data Release Frequency: No Update Planned

SWRCY: Recycler Database

A listing of recycling facilities in California.

Date of Government Version: 04/09/2007
Date Data Arrived at EDR: 04/11/2007
Date Made Active in Reports: 04/27/2007
Number of Days to Update: 16

Source: Department of Conservation
Telephone: 916-323-3836
Last EDR Contact: 07/11/2007
Next Scheduled EDR Contact: 10/08/2007
Data Release Frequency: Quarterly

LUST REG 1: Active Toxic Site Investigation

Del Norte, Humboldt, Lake, Mendocino, Modoc, Siskiyou, Sonoma, Trinity counties. For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 02/01/2001
Date Data Arrived at EDR: 02/28/2001
Date Made Active in Reports: 03/29/2001
Number of Days to Update: 29

Source: California Regional Water Quality Control Board North Coast (1)
Telephone: 707-570-3769
Last EDR Contact: 05/21/2007
Next Scheduled EDR Contact: 08/20/2007
Data Release Frequency: No Update Planned

LUST REG 9: Leaking Underground Storage Tank Report

Orange, Riverside, San Diego counties. For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 03/01/2001
Date Data Arrived at EDR: 04/23/2001
Date Made Active in Reports: 05/21/2001
Number of Days to Update: 28

Source: California Regional Water Quality Control Board San Diego Region (9)
Telephone: 858-637-5595
Last EDR Contact: 07/16/2007
Next Scheduled EDR Contact: 10/15/2007
Data Release Frequency: No Update Planned

LUST REG 8: Leaking Underground Storage Tanks

California Regional Water Quality Control Board Santa Ana Region (8). For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 02/14/2005
Date Data Arrived at EDR: 02/15/2005
Date Made Active in Reports: 03/28/2005
Number of Days to Update: 41

Source: California Regional Water Quality Control Board Santa Ana Region (8)
Telephone: 909-782-4496
Last EDR Contact: 05/07/2007
Next Scheduled EDR Contact: 08/06/2007
Data Release Frequency: Varies

LUST REG 7: Leaking Underground Storage Tank Case Listing
Leaking Underground Storage Tank locations. Imperial, Riverside, San Diego, Santa Barbara counties.

Date of Government Version: 02/26/2004
Date Data Arrived at EDR: 02/26/2004
Date Made Active in Reports: 03/24/2004
Number of Days to Update: 27

Source: California Regional Water Quality Control Board Colorado River Basin Region (7)
Telephone: 760-776-8943
Last EDR Contact: 05/21/2007
Next Scheduled EDR Contact: 08/20/2007
Data Release Frequency: No Update Planned

LUST REG 6V: Leaking Underground Storage Tank Case Listing
Leaking Underground Storage Tank locations. Inyo, Kern, Los Angeles, Mono, San Bernardino counties.

Date of Government Version: 06/07/2005
Date Data Arrived at EDR: 06/07/2005
Date Made Active in Reports: 06/29/2005
Number of Days to Update: 22

Source: California Regional Water Quality Control Board Victorville Branch Office (6)
Telephone: 760-241-7365
Last EDR Contact: 07/02/2007
Next Scheduled EDR Contact: 10/01/2007
Data Release Frequency: No Update Planned

LUST REG 6L: Leaking Underground Storage Tank Case Listing
For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 09/09/2003
Date Data Arrived at EDR: 09/10/2003
Date Made Active in Reports: 10/07/2003
Number of Days to Update: 27

Source: California Regional Water Quality Control Board Lahontan Region (6)
Telephone: 530-542-5572
Last EDR Contact: 06/04/2007
Next Scheduled EDR Contact: 09/03/2007
Data Release Frequency: No Update Planned

LUST REG 5: Leaking Underground Storage Tank Database
Leaking Underground Storage Tank locations. Alameda, Alpine, Amador, Butte, Colusa, Contra Costa, Calveras, El Dorado, Fresno, Glenn, Kern, Kings, Lake, Lassen, Madera, Mariposa, Merced, Modoc, Napa, Nevada, Placer, Plumas, Sacramento, San Joaquin, Shasta, Solano, Stanislaus, Sutter, Tehama, Tulare, Tuolumne, Yolo, Yuba counties.

Date of Government Version: 04/01/2007
Date Data Arrived at EDR: 04/25/2007
Date Made Active in Reports: 05/10/2007
Number of Days to Update: 15

Source: California Regional Water Quality Control Board Central Valley Region (5)
Telephone: 916-464-4834
Last EDR Contact: 07/05/2007
Next Scheduled EDR Contact: 10/01/2007
Data Release Frequency: Quarterly

LUST REG 4: Underground Storage Tank Leak List
Los Angeles, Ventura counties. For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 09/07/2004
Date Data Arrived at EDR: 09/07/2004
Date Made Active in Reports: 10/12/2004
Number of Days to Update: 35

Source: California Regional Water Quality Control Board Los Angeles Region (4)
Telephone: 213-576-6710
Last EDR Contact: 06/25/2007
Next Scheduled EDR Contact: 09/24/2007
Data Release Frequency: No Update Planned

LUST REG 3: Leaking Underground Storage Tank Database
Leaking Underground Storage Tank locations. Monterey, San Benito, San Luis Obispo, Santa Barbara, Santa Cruz counties.

Date of Government Version: 05/19/2003
Date Data Arrived at EDR: 05/19/2003
Date Made Active in Reports: 06/02/2003
Number of Days to Update: 14

Source: California Regional Water Quality Control Board Central Coast Region (3)
Telephone: 805-542-4786
Last EDR Contact: 05/14/2007
Next Scheduled EDR Contact: 08/13/2007
Data Release Frequency: No Update Planned

LUST REG 2: Fuel Leak List
Leaking Underground Storage Tank locations. Alameda, Contra Costa, Marin, Napa, San Francisco, San Mateo, Santa Clara, Solano, Sonoma counties.

Date of Government Version: 09/30/2004
Date Data Arrived at EDR: 10/20/2004
Date Made Active in Reports: 11/19/2004
Number of Days to Update: 30

Source: California Regional Water Quality Control Board San Francisco Bay Region (2)
Telephone: 510-622-2433
Last EDR Contact: 07/09/2007
Next Scheduled EDR Contact: 10/08/2007
Data Release Frequency: Quarterly

LUST: Geotracker's Leaking Underground Fuel Tank Report

Leaking Underground Storage Tank Incident Reports. LUST records contain an inventory of reported leaking underground storage tank incidents. Not all states maintain these records, and the information stored varies by state. For more information on a particular leaking underground storage tank sites, please contact the appropriate regulatory agency.

Date of Government Version: 04/10/2007
Date Data Arrived at EDR: 04/11/2007
Date Made Active in Reports: 04/27/2007
Number of Days to Update: 16

Source: State Water Resources Control Board
Telephone: see region list
Last EDR Contact: 07/11/2007
Next Scheduled EDR Contact: 10/08/2007
Data Release Frequency: Quarterly

CA FID UST: Facility Inventory Database

The Facility Inventory Database (FID) contains a historical listing of active and inactive underground storage tank locations from the State Water Resource Control Board. Refer to local/county source for current data.

Date of Government Version: 10/31/1994
Date Data Arrived at EDR: 09/05/1995
Date Made Active in Reports: 09/29/1995
Number of Days to Update: 24

Source: California Environmental Protection Agency
Telephone: 916-341-5851
Last EDR Contact: 12/28/1998
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

SLIC: Statewide SLIC Cases

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 04/10/2007
Date Data Arrived at EDR: 04/11/2007
Date Made Active in Reports: 04/27/2007
Number of Days to Update: 16

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 07/11/2007
Next Scheduled EDR Contact: 10/08/2007
Data Release Frequency: Varies

SLIC REG 1: Active Toxic Site Investigations

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 04/03/2003
Date Data Arrived at EDR: 04/07/2003
Date Made Active in Reports: 04/25/2003
Number of Days to Update: 18

Source: California Regional Water Quality Control Board, North Coast Region (1)
Telephone: 707-576-2220
Last EDR Contact: 05/21/2007
Next Scheduled EDR Contact: 08/20/2007
Data Release Frequency: No Update Planned

SLIC REG 2: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 09/30/2004
Date Data Arrived at EDR: 10/20/2004
Date Made Active in Reports: 11/19/2004
Number of Days to Update: 30

Source: Regional Water Quality Control Board San Francisco Bay Region (2)
Telephone: 510-286-0457
Last EDR Contact: 07/09/2007
Next Scheduled EDR Contact: 10/08/2007
Data Release Frequency: Quarterly

SLIC REG 3: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 05/18/2006
Date Data Arrived at EDR: 05/18/2006
Date Made Active in Reports: 06/15/2006
Number of Days to Update: 28

Source: California Regional Water Quality Control Board Central Coast Region (3)
Telephone: 805-549-3147
Last EDR Contact: 05/14/2007
Next Scheduled EDR Contact: 08/13/2007
Data Release Frequency: Semi-Annually

SLIC REG 4: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 11/17/2004
Date Data Arrived at EDR: 11/18/2004
Date Made Active in Reports: 01/04/2005
Number of Days to Update: 47

Source: Region Water Quality Control Board Los Angeles Region (4)
Telephone: 213-576-6600
Last EDR Contact: 04/23/2007
Next Scheduled EDR Contact: 07/23/2007
Data Release Frequency: Varies

SLIC REG 5: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 04/01/2005
Date Data Arrived at EDR: 04/05/2005
Date Made Active in Reports: 04/21/2005
Number of Days to Update: 16

Source: Regional Water Quality Control Board Central Valley Region (5)
Telephone: 916-464-3291
Last EDR Contact: 07/02/2007
Next Scheduled EDR Contact: 10/01/2007
Data Release Frequency: Semi-Annually

SLIC REG 6V: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 05/24/2005
Date Data Arrived at EDR: 05/25/2005
Date Made Active in Reports: 06/16/2005
Number of Days to Update: 22

Source: Regional Water Quality Control Board, Victorville Branch
Telephone: 619-241-6583
Last EDR Contact: 07/02/2007
Next Scheduled EDR Contact: 10/01/2007
Data Release Frequency: Semi-Annually

SLIC REG 6L: SLIC Sites
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 09/07/2004
Date Data Arrived at EDR: 09/07/2004
Date Made Active in Reports: 10/12/2004
Number of Days to Update: 35

Source: California Regional Water Quality Control Board, Lahontan Region
Telephone: 530-542-5574
Last EDR Contact: 06/04/2007
Next Scheduled EDR Contact: 09/03/2007
Data Release Frequency: No Update Planned

SLIC REG 7: SLIC List
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 11/24/2004
Date Data Arrived at EDR: 11/29/2004
Date Made Active in Reports: 01/04/2005
Number of Days to Update: 36

Source: California Regional Quality Control Board, Colorado River Basin Region
Telephone: 760-346-7491
Last EDR Contact: 05/21/2007
Next Scheduled EDR Contact: 08/20/2007
Data Release Frequency: No Update Planned

SLIC REG 8: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 04/06/2006
Date Data Arrived at EDR: 04/06/2006
Date Made Active in Reports: 05/11/2006
Number of Days to Update: 35

Source: California Region Water Quality Control Board Santa Ana Region (8)
Telephone: 951-782-3298
Last EDR Contact: 07/17/2007
Next Scheduled EDR Contact: 10/01/2007
Data Release Frequency: Semi-Annually

SLIC REG 9: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 03/13/2007
Date Data Arrived at EDR: 03/14/2007
Date Made Active in Reports: 04/06/2007
Number of Days to Update: 23

Source: California Regional Water Quality Control Board San Diego Region (9)
Telephone: 858-467-2980
Last EDR Contact: 06/29/2007
Next Scheduled EDR Contact: 08/27/2007
Data Release Frequency: Annually

UST: Active UST Facilities

Active UST facilities gathered from the local regulatory agencies

Date of Government Version: 04/10/2007
Date Data Arrived at EDR: 04/11/2007
Date Made Active in Reports: 05/03/2007
Number of Days to Update: 22

Source: SWRCB
Telephone: 916-480-1028
Last EDR Contact: 07/11/2007
Next Scheduled EDR Contact: 10/08/2007
Data Release Frequency: Semi-Annually

UST MENDOCINO: Mendocino County UST Database

A listing of underground storage tank locations in Mendocino County.

Date of Government Version: 02/05/2007
Date Data Arrived at EDR: 02/06/2007
Date Made Active in Reports: 03/21/2007
Number of Days to Update: 43

Source: Department of Public Health
Telephone: 707-463-4466
Last EDR Contact: 06/25/2007
Next Scheduled EDR Contact: 09/24/2007
Data Release Frequency: Varies

HIST UST: Hazardous Substance Storage Container Database

The Hazardous Substance Storage Container Database is a historical listing of UST sites. Refer to local/county source for current data.

Date of Government Version: 10/15/1990
Date Data Arrived at EDR: 01/25/1991
Date Made Active in Reports: 02/12/1991
Number of Days to Update: 18

Source: State Water Resources Control Board
Telephone: 916-341-5851
Last EDR Contact: 07/26/2001
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

LIENS: Environmental Liens Listing

A listing of property locations with environmental liens for California where DTSC is a lien holder.

Date of Government Version: 05/07/2007
Date Data Arrived at EDR: 05/08/2007
Date Made Active in Reports: 05/25/2007
Number of Days to Update: 17

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 02/22/2007
Next Scheduled EDR Contact: 08/06/2007
Data Release Frequency: Varies

AST: Aboveground Petroleum Storage Tank Facilities

Registered Aboveground Storage Tanks.

Date of Government Version: 05/01/2007
Date Data Arrived at EDR: 05/01/2007
Date Made Active in Reports: 05/25/2007
Number of Days to Update: 24

Source: State Water Resources Control Board
Telephone: 916-341-5712
Last EDR Contact: 04/30/2007
Next Scheduled EDR Contact: 07/30/2007
Data Release Frequency: Quarterly

SWEEPS UST: SWEEPS UST Listing

Statewide Environmental Evaluation and Planning System. This underground storage tank listing was updated and maintained by a company contacted by the SWRCB in the early 1980's. The listing is no longer updated or maintained. The local agency is the contact for more information on a site on the SWEEPS list.

Date of Government Version: 06/01/1994
Date Data Arrived at EDR: 07/07/2005
Date Made Active in Reports: 08/11/2005
Number of Days to Update: 35

Source: State Water Resources Control Board
Telephone: N/A
Last EDR Contact: 06/03/2005
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

CHMIRS: California Hazardous Material Incident Report System

California Hazardous Material Incident Reporting System. CHMIRS contains information on reported hazardous material incidents (accidental releases or spills).

Date of Government Version: 12/31/2005
Date Data Arrived at EDR: 02/23/2007
Date Made Active in Reports: 04/06/2007
Number of Days to Update: 42

Source: Office of Emergency Services
Telephone: 916-845-8400
Last EDR Contact: 05/21/2007
Next Scheduled EDR Contact: 08/20/2007
Data Release Frequency: Varies

NOTIFY 65: Proposition 65 Records

Proposition 65 Notification Records. NOTIFY 65 contains facility notifications about any release which could impact drinking water and thereby expose the public to a potential health risk.

Date of Government Version: 10/21/1993
Date Data Arrived at EDR: 11/01/1993
Date Made Active in Reports: 11/19/1993
Number of Days to Update: 18

Source: State Water Resources Control Board
Telephone: 916-445-3846
Last EDR Contact: 07/16/2007
Next Scheduled EDR Contact: 10/15/2007
Data Release Frequency: No Update Planned

DEED: Deed Restriction Listing

Site Mitigation and Brownfields Reuse Program Facility Sites with Deed Restrictions & Hazardous Waste Management Program Facility Sites with Deed / Land Use Restriction. The DTSC Site Mitigation and Brownfields Reuse Program (SMBRP) list includes sites cleaned up under the program's oversight and generally does not include current or former hazardous waste facilities that required a hazardous waste facility permit. The list represents deed restrictions that are active. Some sites have multiple deed restrictions. The DTSC Hazardous Waste Management Program (HWMP) has developed a list of current or former hazardous waste facilities that have a recorded land use restriction at the local county recorder's office. The land use restrictions on this list were required by the DTSC HWMP as a result of the presence of hazardous substances that remain on site after the facility (or part of the facility) has been closed or cleaned up. The types of land use restriction include deed notice, deed restriction, or a land use restriction that binds current and future owners.

Date of Government Version: 04/03/2007
Date Data Arrived at EDR: 04/05/2007
Date Made Active in Reports: 04/27/2007
Number of Days to Update: 22

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 07/03/2007
Next Scheduled EDR Contact: 10/01/2007
Data Release Frequency: Semi-Annually

VCP: Voluntary Cleanup Program Properties

Contains low threat level properties with either confirmed or unconfirmed releases and the project proponents have request that DTSC oversee investigation and/or cleanup activities and have agreed to provide coverage for DTSC's costs.

Date of Government Version: 05/29/2007
Date Data Arrived at EDR: 05/30/2007
Date Made Active in Reports: 06/29/2007
Number of Days to Update: 30

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 05/30/2007
Next Scheduled EDR Contact: 08/27/2007
Data Release Frequency: Quarterly

DRYCLEANERS: Cleaner Facilities

A list of drycleaner related facilities that have EPA ID numbers. These are facilities with certain SIC codes: power laundries, family and commercial; garment pressing and cleaner's agents; linen supply; coin-operated laundries and cleaning; drycleaning plants, except rugs; carpet and upholster cleaning; industrial launderers; laundry and garment services.

Date of Government Version: 04/18/2005
Date Data Arrived at EDR: 04/18/2005
Date Made Active in Reports: 05/06/2005
Number of Days to Update: 18

Source: Department of Toxic Substance Control
Telephone: 916-327-4498
Last EDR Contact: 06/25/2007
Next Scheduled EDR Contact: 10/01/2007
Data Release Frequency: Annually

WIP: Well Investigation Program Case List

Well Investigation Program case in the San Gabriel and San Fernando Valley area.

Date of Government Version: 03/01/2007
Date Data Arrived at EDR: 03/13/2007
Date Made Active in Reports: 04/06/2007
Number of Days to Update: 24

Source: Los Angeles Water Quality Control Board
Telephone: 213-576-6726
Last EDR Contact: 04/27/2007
Next Scheduled EDR Contact: 07/23/2007
Data Release Frequency: Varies

CDL: Clandestine Drug Labs

A listing of drug lab locations. Listing of a location in this database does not indicate that any illegal drug lab materials were or were not present there, and does not constitute a determination that the location either requires or does not require additional cleanup work.

Date of Government Version: 12/31/2006
Date Data Arrived at EDR: 03/07/2007
Date Made Active in Reports: 04/06/2007
Number of Days to Update: 30

Source: Department of Toxic Substances Control
Telephone: 916-255-6504
Last EDR Contact: 04/23/2007
Next Scheduled EDR Contact: 07/23/2007
Data Release Frequency: Varies

RESPONSE: State Response Sites

Identifies confirmed release sites where DTSC is involved in remediation, either in a lead or oversight capacity. These confirmed release sites are generally high-priority and high potential risk.

Date of Government Version: 05/29/2007
Date Data Arrived at EDR: 05/30/2007
Date Made Active in Reports: 06/29/2007
Number of Days to Update: 30

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 05/30/2007
Next Scheduled EDR Contact: 08/27/2007
Data Release Frequency: Quarterly

HAZNET: Facility and Manifest Data

Facility and Manifest Data. The data is extracted from the copies of hazardous waste manifests received each year by the DTSC. The annual volume of manifests is typically 700,000 - 1,000,000 annually, representing approximately 350,000 - 500,000 shipments. Data are from the manifests submitted without correction, and therefore many contain some invalid values for data elements such as generator ID, TSD ID, waste category, and disposal method.

Date of Government Version: 12/31/2005
Date Data Arrived at EDR: 11/20/2006
Date Made Active in Reports: 01/03/2007
Number of Days to Update: 44

Source: California Environmental Protection Agency
Telephone: 916-255-1136
Last EDR Contact: 05/11/2007
Next Scheduled EDR Contact: 08/06/2007
Data Release Frequency: Annually

EMI: Emissions Inventory Data

Toxics and criteria pollutant emissions data collected by the ARB and local air pollution agencies.

Date of Government Version: 12/31/2005
Date Data Arrived at EDR: 04/17/2007
Date Made Active in Reports: 05/10/2007
Number of Days to Update: 23

Source: California Air Resources Board
Telephone: 916-322-2990
Last EDR Contact: 04/17/2007
Next Scheduled EDR Contact: 07/16/2007
Data Release Frequency: Varies

ENVIROSTOR: EnviroStor Database

The Department of Toxic Substances Control's (DTSC's) Site Mitigation and Brownfields Reuse Program's (SMBRP's) EnviroStor database identifes sites that have known contamination or sites for which there may be reasons to investigate further. The database includes the following site types: Federal Superfund sites (National Priorities List (NPL)); State Response, including Military Facilities and State Superfund; Voluntary Cleanup; and School sites. EnviroStor provides similar information to the information that was available in CalSites, and provides additional site information, including, but not limited to, identification of formerly-contaminated properties that have been released for reuse, properties where environmental deed restrictions have been recorded to prevent inappropriate land uses, and risk characterization information that is used to assess potential impacts to public health and the environment at contaminated sites.

Date of Government Version: 05/29/2007
Date Data Arrived at EDR: 05/30/2007
Date Made Active in Reports: 06/29/2007
Number of Days to Update: 30

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 05/30/2007
Next Scheduled EDR Contact: 08/27/2007
Data Release Frequency: Quarterly

TRIBAL RECORDS

INDIAN RESERV: Indian Reservations

This map layer portrays Indian administered lands of the United States that have any area equal to or greater than 640 acres.

Date of Government Version: 12/31/2005
Date Data Arrived at EDR: 02/06/2006
Date Made Active in Reports: 01/11/2007
Number of Days to Update: 339

Source: USGS
Telephone: 202-208-3710
Last EDR Contact: 05/11/2007
Next Scheduled EDR Contact: 08/06/2007
Data Release Frequency: Semi-Annually

INDIAN LUST R1: Leaking Underground Storage Tanks on Indian Land

A listing of leaking underground storage tank locations on Indian Land.

Date of Government Version: 12/01/2006
Date Data Arrived at EDR: 12/01/2006
Date Made Active in Reports: 01/29/2007
Number of Days to Update: 59

Source: EPA Region 1
Telephone: 617-918-1313
Last EDR Contact: 05/21/2007
Next Scheduled EDR Contact: 08/20/2007
Data Release Frequency: Varies

INDIAN LUST R7: Leaking Underground Storage Tanks on Indian Land

LUSTs on Indian land in Iowa, Kansas, and Nebraska

Date of Government Version: 06/01/2007
Date Data Arrived at EDR: 06/14/2007
Date Made Active in Reports: 07/05/2007
Number of Days to Update: 21

Source: EPA Region 7
Telephone: 913-551-7003
Last EDR Contact: 05/21/2007
Next Scheduled EDR Contact: 08/20/2007
Data Release Frequency: Varies

INDIAN LUST R6: Leaking Underground Storage Tanks on Indian Land

LUSTs on Indian land in New Mexico and Oklahoma.

Date of Government Version: 01/04/2005
Date Data Arrived at EDR: 01/21/2005
Date Made Active in Reports: 02/28/2005
Number of Days to Update: 38

Source: EPA Region 6
Telephone: 214-665-6597
Last EDR Contact: 05/21/2007
Next Scheduled EDR Contact: 08/20/2007
Data Release Frequency: Varies

INDIAN LUST R4: Leaking Underground Storage Tanks on Indian Land

LUSTs on Indian land in Florida, Minnesota, Mississippi and North Carolina.

Date of Government Version: 03/20/2007
Date Data Arrived at EDR: 04/16/2007
Date Made Active in Reports: 05/14/2007
Number of Days to Update: 28

Source: EPA Region 4
Telephone: 404-562-8677
Last EDR Contact: 05/21/2007
Next Scheduled EDR Contact: 08/20/2007
Data Release Frequency: Semi-Annually

INDIAN LUST R8: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Colorado, Montana, North Dakota, South Dakota, Utah and Wyoming.

Date of Government Version: 05/30/2007
Date Data Arrived at EDR: 05/31/2007
Date Made Active in Reports: 07/05/2007
Number of Days to Update: 35
Source: EPA Region 8
Telephone: 303-312-6271
Last EDR Contact: 05/21/2007
Next Scheduled EDR Contact: 08/20/2007
Data Release Frequency: Quarterly

INDIAN LUST R10: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Alaska, Idaho, Oregon and Washington.

Date of Government Version: 05/23/2007
Date Data Arrived at EDR: 05/24/2007
Date Made Active in Reports: 07/05/2007
Number of Days to Update: 42
Source: EPA Region 10
Telephone: 206-553-2857
Last EDR Contact: 05/21/2007
Next Scheduled EDR Contact: 08/20/2007
Data Release Frequency: Quarterly

INDIAN LUST R9: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Arizona, California, New Mexico and Nevada

Date of Government Version: 06/18/2007
Date Data Arrived at EDR: 06/18/2007
Date Made Active in Reports: 07/05/2007
Number of Days to Update: 17
Source: Environmental Protection Agency
Telephone: 415-972-3372
Last EDR Contact: 05/21/2007
Next Scheduled EDR Contact: 08/20/2007
Data Release Frequency: Quarterly

INDIAN UST R6: Underground Storage Tanks on Indian Land

Date of Government Version: 06/06/2007
Date Data Arrived at EDR: 06/07/2007
Date Made Active in Reports: 07/05/2007
Number of Days to Update: 28
Source: EPA Region 6
Telephone: 214-665-7591
Last EDR Contact: 05/21/2007
Next Scheduled EDR Contact: 08/20/2007
Data Release Frequency: Semi-Annually

INDIAN UST R7: Underground Storage Tanks on Indian Land

Date of Government Version: 06/01/2007
Date Data Arrived at EDR: 06/14/2007
Date Made Active in Reports: 07/05/2007
Number of Days to Update: 21
Source: EPA Region 7
Telephone: 913-551-7003
Last EDR Contact: 05/21/2007
Next Scheduled EDR Contact: 08/20/2007
Data Release Frequency: Varies

INDIAN UST R4: Underground Storage Tanks on Indian Land

Date of Government Version: 03/20/2007
Date Data Arrived at EDR: 04/16/2007
Date Made Active in Reports: 05/14/2007
Number of Days to Update: 28
Source: EPA Region 4
Telephone: 404-562-9424
Last EDR Contact: 05/21/2007
Next Scheduled EDR Contact: 08/20/2007
Data Release Frequency: Semi-Annually

INDIAN UST R9: Underground Storage Tanks on Indian Land

Date of Government Version: 06/18/2007
Date Data Arrived at EDR: 06/18/2007
Date Made Active in Reports: 07/05/2007
Number of Days to Update: 17
Source: EPA Region 9
Telephone: 415-972-3368
Last EDR Contact: 05/21/2007
Next Scheduled EDR Contact: 08/20/2007
Data Release Frequency: Quarterly

INDIAN UST R1: Underground Storage Tanks on Indian Land
A listing of underground storage tank locations on Indian Land.

Date of Government Version: 12/01/2006
Date Data Arrived at EDR: 12/01/2006
Date Made Active in Reports: 01/29/2007
Number of Days to Update: 59

Source: EPA, Region 1
Telephone: 617-918-1313
Last EDR Contact: 05/21/2007
Next Scheduled EDR Contact: 08/20/2007
Data Release Frequency: Varies

INDIAN UST R5: Underground Storage Tanks on Indian Land

Date of Government Version: 12/02/2004
Date Data Arrived at EDR: 12/29/2004
Date Made Active in Reports: 02/04/2005
Number of Days to Update: 37

Source: EPA Region 5
Telephone: 312-886-6136
Last EDR Contact: 05/21/2007
Next Scheduled EDR Contact: 08/20/2007
Data Release Frequency: Varies

INDIAN UST R8: Underground Storage Tanks on Indian Land

Date of Government Version: 05/30/2007
Date Data Arrived at EDR: 05/31/2007
Date Made Active in Reports: 07/05/2007
Number of Days to Update: 35

Source: EPA Region 8
Telephone: 303-312-6137
Last EDR Contact: 05/21/2007
Next Scheduled EDR Contact: 08/20/2007
Data Release Frequency: Quarterly

INDIAN UST R10: Underground Storage Tanks on Indian Land

Date of Government Version: 05/23/2007
Date Data Arrived at EDR: 05/24/2007
Date Made Active in Reports: 07/05/2007
Number of Days to Update: 42

Source: EPA Region 10
Telephone: 206-553-2857
Last EDR Contact: 05/21/2007
Next Scheduled EDR Contact: 08/20/2007
Data Release Frequency: Quarterly

EDR PROPRIETARY RECORDS

Manufactured Gas Plants: EDR Proprietary Manufactured Gas Plants

The EDR Proprietary Manufactured Gas Plant Database includes records of coal gas plants (manufactured gas plants) compiled by EDR's researchers. Manufactured gas sites were used in the United States from the 1800's to 1950's to produce a gas that could be distributed and used as fuel. These plants used whale oil, rosin, coal, or a mixture of coal, oil, and water that also produced a significant amount of waste. Many of the byproducts of the gas production, such as coal tar (oily waste containing volatile and non-volatile chemicals), sludges, oils and other compounds are potentially hazardous to human health and the environment. The byproduct from this process was frequently disposed of directly at the plant site and can remain or spread slowly, serving as a continuous source of soil and groundwater contamination.

Date of Government Version: N/A
Date Data Arrived at EDR: N/A
Date Made Active in Reports: N/A
Number of Days to Update: N/A

Source: EDR, Inc.
Telephone: N/A
Last EDR Contact: N/A
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

COUNTY RECORDS

ALAMEDA COUNTY:

Contaminated Sites

A listing of contaminated sites overseen by the Toxic Release Program (oil and groundwater contamination from chemical releases and spills) and the Leaking Underground Storage Tank Program (soil and ground water contamination from leaking petroleum USTs).

Date of Government Version: 04/24/2007
Date Data Arrived at EDR: 04/26/2007
Date Made Active in Reports: 05/10/2007
Number of Days to Update: 14

Source: Alameda County Environmental Health Services
Telephone: 510-567-6700
Last EDR Contact: 04/23/2007
Next Scheduled EDR Contact: 07/23/2007
Data Release Frequency: Semi-Annually

Underground Tanks

Underground storage tank sites located in Alameda county.

Date of Government Version: 04/24/2007
Date Data Arrived at EDR: 04/26/2007
Date Made Active in Reports: 05/07/2007
Number of Days to Update: 11

Source: Alameda County Environmental Health Services
Telephone: 510-567-6700
Last EDR Contact: 04/23/2007
Next Scheduled EDR Contact: 07/23/2007
Data Release Frequency: Semi-Annually

CONTRA COSTA COUNTY:

Site List

List includes sites from the underground tank, hazardous waste generator and business plan/2185 programs.

Date of Government Version: 05/29/2007
Date Data Arrived at EDR: 05/31/2007
Date Made Active in Reports: 06/29/2007
Number of Days to Update: 29

Source: Contra Costa Health Services Department
Telephone: 925-646-2286
Last EDR Contact: 05/29/2007
Next Scheduled EDR Contact: 08/27/2007
Data Release Frequency: Semi-Annually

FRESNO COUNTY:

CUPA Resources List

Certified Unified Program Agency. CUPA's are responsible for implementing a unified hazardous materials and hazardous waste management regulatory program. The agency provides oversight of businesses that deal with hazardous materials, operate underground storage tanks or aboveground storage tanks.

Date of Government Version: 04/09/2007
Date Data Arrived at EDR: 04/10/2007
Date Made Active in Reports: 04/27/2007
Number of Days to Update: 17

Source: Dept. of Community Health
Telephone: 559-445-3271
Last EDR Contact: 07/17/2007
Next Scheduled EDR Contact: 08/06/2007
Data Release Frequency: Semi-Annually

KERN COUNTY:

Underground Storage Tank Sites & Tank Listing

Kern County Sites and Tanks Listing.

Date of Government Version: 04/13/2007
Date Data Arrived at EDR: 04/16/2007
Date Made Active in Reports: 05/07/2007
Number of Days to Update: 21

Source: Kern County Environment Health Services Department
Telephone: 661-862-8700
Last EDR Contact: 06/18/2007
Next Scheduled EDR Contact: 09/03/2007
Data Release Frequency: Quarterly

LOS ANGELES COUNTY:

San Gabriel Valley Areas of Concern

San Gabriel Valley areas where VOC contamination is at or above the MCL as designated by region 9 EPA office.

Date of Government Version: 12/31/1998
Date Data Arrived at EDR: 07/07/1999
Date Made Active in Reports: N/A
Number of Days to Update: 0

Source: EPA Region 9
Telephone: 415-972-3178
Last EDR Contact: 07/16/2007
Next Scheduled EDR Contact: 10/15/2007
Data Release Frequency: No Update Planned

HMS: Street Number List
Industrial Waste and Underground Storage Tank Sites.

Date of Government Version: 01/31/2007
Date Data Arrived at EDR: 04/12/2007
Date Made Active in Reports: 04/27/2007
Number of Days to Update: 15
Source: Department of Public Works
Telephone: 626-458-3517
Last EDR Contact: 05/14/2007
Next Scheduled EDR Contact: 08/13/2007
Data Release Frequency: Semi-Annually

List of Solid Waste Facilities
Solid Waste Facilities in Los Angeles County.

Date of Government Version: 05/15/2007
Date Data Arrived at EDR: 06/08/2007
Date Made Active in Reports: 06/29/2007
Number of Days to Update: 21
Source: La County Department of Public Works
Telephone: 818-458-5185
Last EDR Contact: 05/16/2007
Next Scheduled EDR Contact: 08/13/2007
Data Release Frequency: Varies

City of Los Angeles Landfills
Landfills owned and maintained by the City of Los Angeles.

Date of Government Version: 03/01/2007
Date Data Arrived at EDR: 03/27/2007
Date Made Active in Reports: 04/27/2007
Number of Days to Update: 31
Source: Engineering & Construction Division
Telephone: 213-473-7869
Last EDR Contact: 06/11/2007
Next Scheduled EDR Contact: 09/10/2007
Data Release Frequency: Varies

Site Mitigation List
Industrial sites that have had some sort of spill or complaint.

Date of Government Version: 12/04/2006
Date Data Arrived at EDR: 01/09/2007
Date Made Active in Reports: 01/24/2007
Number of Days to Update: 15
Source: Community Health Services
Telephone: 323-890-7806
Last EDR Contact: 05/14/2007
Next Scheduled EDR Contact: 08/13/2007
Data Release Frequency: Annually

City of El Segundo Underground Storage Tank
Underground storage tank sites located in El Segundo city.

Date of Government Version: 05/14/2007
Date Data Arrived at EDR: 05/15/2007
Date Made Active in Reports: 06/25/2007
Number of Days to Update: 41
Source: City of El Segundo Fire Department
Telephone: 310-524-2236
Last EDR Contact: 05/14/2007
Next Scheduled EDR Contact: 08/13/2007
Data Release Frequency: Semi-Annually

City of Long Beach Underground Storage Tank
Underground storage tank sites located in the city of Long Beach.

Date of Government Version: 03/28/2003
Date Data Arrived at EDR: 10/23/2003
Date Made Active in Reports: 11/26/2003
Number of Days to Update: 34
Source: City of Long Beach Fire Department
Telephone: 562-570-2563
Last EDR Contact: 05/30/2007
Next Scheduled EDR Contact: 08/20/2007
Data Release Frequency: Annually

City of Torrance Underground Storage Tank
Underground storage tank sites located in the city of Torrance.

Date of Government Version: 05/29/2007
Date Data Arrived at EDR: 05/29/2007
Date Made Active in Reports: 06/25/2007
Number of Days to Update: 27
Source: City of Torrance Fire Department
Telephone: 310-618-2973
Last EDR Contact: 05/29/2007
Next Scheduled EDR Contact: 08/13/2007
Data Release Frequency: Semi-Annually

MARIN COUNTY:

Underground Storage Tank Sites
Currently permitted USTs in Marin County.

Date of Government Version: 01/26/2007
Date Data Arrived at EDR: 02/20/2007
Date Made Active in Reports: 03/21/2007
Number of Days to Update: 29

Source: Public Works Department Waste Management
Telephone: 415-499-6647
Last EDR Contact: 04/30/2007
Next Scheduled EDR Contact: 07/30/2007
Data Release Frequency: Semi-Annually

NAPA COUNTY:

Sites With Reported Contamination
A listing of leaking underground storage tank sites located in Napa county.

Date of Government Version: 04/09/2007
Date Data Arrived at EDR: 04/10/2007
Date Made Active in Reports: 04/27/2007
Number of Days to Update: 17

Source: Napa County Department of Environmental Management
Telephone: 707-253-4269
Last EDR Contact: 07/09/2007
Next Scheduled EDR Contact: 09/24/2007
Data Release Frequency: Semi-Annually

Closed and Operating Underground Storage Tank Sites
Underground storage tank sites located in Napa county.

Date of Government Version: 04/09/2007
Date Data Arrived at EDR: 04/10/2007
Date Made Active in Reports: 04/24/2007
Number of Days to Update: 14

Source: Napa County Department of Environmental Management
Telephone: 707-253-4269
Last EDR Contact: 07/09/2007
Next Scheduled EDR Contact: 09/24/2007
Data Release Frequency: Annually

ORANGE COUNTY:

List of Industrial Site Cleanups
Petroleum and non-petroleum spills.

Date of Government Version: 06/01/2007
Date Data Arrived at EDR: 06/19/2007
Date Made Active in Reports: 06/29/2007
Number of Days to Update: 10

Source: Health Care Agency
Telephone: 714-834-3446
Last EDR Contact: 06/06/2007
Next Scheduled EDR Contact: 09/03/2007
Data Release Frequency: Annually

List of Underground Storage Tank Cleanups
Orange County Underground Storage Tank Cleanups (LUST).

Date of Government Version: 06/01/2007
Date Data Arrived at EDR: 06/19/2007
Date Made Active in Reports: 06/29/2007
Number of Days to Update: 10

Source: Health Care Agency
Telephone: 714-834-3446
Last EDR Contact: 06/06/2007
Next Scheduled EDR Contact: 09/03/2007
Data Release Frequency: Quarterly

List of Underground Storage Tank Facilities
Orange County Underground Storage Tank Facilities (UST).

Date of Government Version: 03/01/2007
Date Data Arrived at EDR: 03/20/2007
Date Made Active in Reports: 04/12/2007
Number of Days to Update: 23

Source: Health Care Agency
Telephone: 714-834-3446
Last EDR Contact: 06/06/2007
Next Scheduled EDR Contact: 09/03/2007
Data Release Frequency: Quarterly

PLACER COUNTY:

Master List of Facilities
List includes aboveground tanks, underground tanks and cleanup sites.

Date of Government Version: 04/04/2007
Date Data Arrived at EDR: 04/05/2007
Date Made Active in Reports: 04/27/2007
Number of Days to Update: 22

Source: Placer County Health and Human Services
Telephone: 530-889-7312
Last EDR Contact: 06/18/2007
Next Scheduled EDR Contact: 09/17/2007
Data Release Frequency: Semi-Annually

RIVERSIDE COUNTY:

Listing of Underground Tank Cleanup Sites
Riverside County Underground Storage Tank Cleanup Sites (LUST).

Date of Government Version: 05/21/2007
Date Data Arrived at EDR: 05/22/2007
Date Made Active in Reports: 06/29/2007
Number of Days to Update: 38

Source: Department of Public Health
Telephone: 951-358-5055
Last EDR Contact: 07/16/2007
Next Scheduled EDR Contact: 10/15/2007
Data Release Frequency: Quarterly

Underground Storage Tank Tank List
Underground storage tank sites located in Riverside county.

Date of Government Version: 05/21/2007
Date Data Arrived at EDR: 05/22/2007
Date Made Active in Reports: 06/25/2007
Number of Days to Update: 34

Source: Health Services Agency
Telephone: 951-358-5055
Last EDR Contact: 07/16/2007
Next Scheduled EDR Contact: 10/15/2007
Data Release Frequency: Quarterly

SACRAMENTO COUNTY:

Contaminated Sites
List of sites where unauthorized releases of potentially hazardous materials have occurred.

Date of Government Version: 05/04/2007
Date Data Arrived at EDR: 05/23/2007
Date Made Active in Reports: 06/29/2007
Number of Days to Update: 37

Source: Sacramento County Environmental Management
Telephone: 916-875-8406
Last EDR Contact: 05/01/2007
Next Scheduled EDR Contact: 07/30/2007
Data Release Frequency: Quarterly

ML - Regulatory Compliance Master List
Any business that has hazardous materials on site - hazardous material storage sites, underground storage tanks, waste generators.

Date of Government Version: 05/04/2007
Date Data Arrived at EDR: 05/24/2007
Date Made Active in Reports: 06/29/2007
Number of Days to Update: 36

Source: Sacramento County Environmental Management
Telephone: 916-875-8406
Last EDR Contact: 05/01/2007
Next Scheduled EDR Contact: 07/30/2007
Data Release Frequency: Quarterly

SAN BERNARDINO COUNTY:

Hazardous Material Permits
This listing includes underground storage tanks, medical waste handlers/generators, hazardous materials handlers, hazardous waste generators, and waste oil generators/handlers.

Date of Government Version: 03/23/2007
Date Data Arrived at EDR: 03/27/2007
Date Made Active in Reports: 04/27/2007
Number of Days to Update: 31

Source: San Bernardino County Fire Department Hazardous Materials Division
Telephone: 909-387-3041
Last EDR Contact: 06/04/2007
Next Scheduled EDR Contact: 09/03/2007
Data Release Frequency: Quarterly

SAN DIEGO COUNTY:

Hazardous Materials Management Division Database

The database includes: HE58 - This report contains the business name, site address, business phone number, establishment 'H' permit number, type of permit, and the business status. HE17 - In addition to providing the same information provided in the HE58 listing, HE17 provides inspection dates, violations received by the establishment, hazardous waste generated, the quantity, method of storage, treatment/disposal of waste and the hauler, and information on underground storage tanks. Unauthorized Release List - Includes a summary of environmental contamination cases in San Diego County (underground tank cases, non-tank cases, groundwater contamination, and soil contamination are included.)

Date of Government Version: 05/16/2005
Date Data Arrived at EDR: 05/18/2005
Date Made Active in Reports: 06/16/2005
Number of Days to Update: 29

Source: Hazardous Materials Management Division
Telephone: 619-338-2268
Last EDR Contact: 07/05/2007
Next Scheduled EDR Contact: 10/01/2007
Data Release Frequency: Quarterly

Solid Waste Facilities

San Diego County Solid Waste Facilities.

Date of Government Version: 11/01/2006
Date Data Arrived at EDR: 01/03/2007
Date Made Active in Reports: 01/24/2007
Number of Days to Update: 21

Source: Department of Health Services
Telephone: 619-338-2209
Last EDR Contact: 06/04/2007
Next Scheduled EDR Contact: 08/20/2007
Data Release Frequency: Varies

Environmental Case Listing

The listing contains all underground tank release cases and projects pertaining to properties contaminated with hazardous substances that are actively under review by the Site Assessment and Mitigation Program.

Date of Government Version: 03/29/2007
Date Data Arrived at EDR: 04/24/2007
Date Made Active in Reports: 05/10/2007
Number of Days to Update: 16

Source: San Diego County Department of Environmental Health
Telephone: 619-338-2371
Last EDR Contact: 07/03/2007
Next Scheduled EDR Contact: 10/01/2007
Data Release Frequency: Varies

SAN FRANCISCO COUNTY:

Local Oversite Facilities

A listing of leaking underground storage tank sites located in San Francisco county.

Date of Government Version: 06/08/2007
Date Data Arrived at EDR: 06/12/2007
Date Made Active in Reports: 06/29/2007
Number of Days to Update: 17

Source: Department Of Public Health San Francisco County
Telephone: 415-252-3920
Last EDR Contact: 06/04/2007
Next Scheduled EDR Contact: 09/03/2007
Data Release Frequency: Quarterly

Underground Storage Tank Information

Underground storage tank sites located in San Francisco county.

Date of Government Version: 03/08/2007
Date Data Arrived at EDR: 03/13/2007
Date Made Active in Reports: 04/12/2007
Number of Days to Update: 30

Source: Department of Public Health
Telephone: 415-252-3920
Last EDR Contact: 06/04/2007
Next Scheduled EDR Contact: 09/03/2007
Data Release Frequency: Quarterly

SAN JOAQUIN COUNTY:

San Joaquin Co. UST

A listing of underground storage tank locations in San Joaquin county.

Date of Government Version: 04/06/2007
Date Data Arrived at EDR: 04/10/2007
Date Made Active in Reports: 04/24/2007
Number of Days to Update: 14

Source: Environmental Health Department
Telephone: N/A
Last EDR Contact: 07/16/2007
Next Scheduled EDR Contact: 10/15/2007
Data Release Frequency: Semi-Annually

SAN MATEO COUNTY:

Business Inventory

List includes Hazardous Materials Business Plan, hazardous waste generators, and underground storage tanks.

Date of Government Version: 04/30/2007
Date Data Arrived at EDR: 05/01/2007
Date Made Active in Reports: 05/25/2007
Number of Days to Update: 24

Source: San Mateo County Environmental Health Services Division
Telephone: 650-363-1921
Last EDR Contact: 07/09/2007
Next Scheduled EDR Contact: 10/08/2007
Data Release Frequency: Annually

Fuel Leak List

A listing of leaking underground storage tank sites located in San Mateo county.

Date of Government Version: 04/11/2007
Date Data Arrived at EDR: 04/12/2007
Date Made Active in Reports: 04/27/2007
Number of Days to Update: 15

Source: San Mateo County Environmental Health Services Division
Telephone: 650-363-1921
Last EDR Contact: 07/09/2007
Next Scheduled EDR Contact: 10/08/2007
Data Release Frequency: Semi-Annually

SANTA CLARA COUNTY:

LOP Listing

A listing of leaking underground storage tanks located in Santa Clara county.

Date of Government Version: 03/26/2007
Date Data Arrived at EDR: 03/27/2007
Date Made Active in Reports: 04/27/2007
Number of Days to Update: 31

Source: Department of Environmental Health
Telephone: 408-918-3417
Last EDR Contact: 06/25/2007
Next Scheduled EDR Contact: 09/24/2007
Data Release Frequency: Varies

Hazardous Material Facilities

Hazardous material facilities, including underground storage tank sites.

Date of Government Version: 06/11/2007
Date Data Arrived at EDR: 06/12/2007
Date Made Active in Reports: 06/29/2007
Number of Days to Update: 17

Source: City of San Jose Fire Department
Telephone: 408-277-4659
Last EDR Contact: 06/04/2007
Next Scheduled EDR Contact: 09/03/2007
Data Release Frequency: Annually

SOLANO COUNTY:

Leaking Underground Storage Tanks

A listing of leaking underground storage tank sites located in Solano county.

Date of Government Version: 03/26/2007
Date Data Arrived at EDR: 04/16/2007
Date Made Active in Reports: 05/10/2007
Number of Days to Update: 24

Source: Solano County Department of Environmental Management
Telephone: 707-784-6770
Last EDR Contact: 07/09/2007
Next Scheduled EDR Contact: 09/24/2007
Data Release Frequency: Quarterly

Underground Storage Tanks

Underground storage tank sites located in Solano county.

Date of Government Version: 03/26/2007
Date Data Arrived at EDR: 04/18/2007
Date Made Active in Reports: 05/07/2007
Number of Days to Update: 19

Source: Solano County Department of Environmental Management
Telephone: 707-784-6770
Last EDR Contact: 07/09/2007
Next Scheduled EDR Contact: 09/24/2007
Data Release Frequency: Quarterly

SONOMA COUNTY:

Leaking Underground Storage Tank Sites

A listing of leaking underground storage tank sites located in Sonoma county.

Date of Government Version: 04/23/2007
Date Data Arrived at EDR: 04/24/2007
Date Made Active in Reports: 05/10/2007
Number of Days to Update: 16

Source: Department of Health Services
Telephone: 707-565-6565
Last EDR Contact: 07/09/2007
Next Scheduled EDR Contact: 07/23/2007
Data Release Frequency: Quarterly

SUTTER COUNTY:

Underground Storage Tanks

Underground storage tank sites located in Sutter county.

Date of Government Version: 05/04/2007
Date Data Arrived at EDR: 05/04/2007
Date Made Active in Reports: 05/24/2007
Number of Days to Update: 20

Source: Sutter County Department of Agriculture
Telephone: 530-822-7500
Last EDR Contact: 07/02/2007
Next Scheduled EDR Contact: 10/01/2007
Data Release Frequency: Semi-Annually

VENTURA COUNTY:

Business Plan, Hazardous Waste Producers, and Operating Underground Tanks

The BWT list indicates by site address whether the Environmental Health Division has Business Plan (B), Waste Producer (W), and/or Underground Tank (T) information.

Date of Government Version: 05/30/2007
Date Data Arrived at EDR: 06/22/2007
Date Made Active in Reports: 06/29/2007
Number of Days to Update: 7

Source: Ventura County Environmental Health Division
Telephone: 805-654-2813
Last EDR Contact: 06/12/2007
Next Scheduled EDR Contact: 09/10/2007
Data Release Frequency: Quarterly

Inventory of Illegal Abandoned and Inactive Sites

Ventura County Inventory of Closed, Illegal Abandoned, and Inactive Sites.

Date of Government Version: 08/01/2006
Date Data Arrived at EDR: 09/05/2006
Date Made Active in Reports: 10/05/2006
Number of Days to Update: 30

Source: Environmental Health Division
Telephone: 805-654-2813
Last EDR Contact: 05/21/2007
Next Scheduled EDR Contact: 08/20/2007
Data Release Frequency: Annually

Listing of Underground Tank Cleanup Sites

Ventura County Underground Storage Tank Cleanup Sites (LUST).

Date of Government Version: 06/05/2007
Date Data Arrived at EDR: 06/21/2007
Date Made Active in Reports: 06/29/2007
Number of Days to Update: 8

Source: Environmental Health Division
Telephone: 805-654-2813
Last EDR Contact: 06/12/2007
Next Scheduled EDR Contact: 09/10/2007
Data Release Frequency: Quarterly

Underground Tank Closed Sites List

Ventura County Operating Underground Storage Tank Sites (UST)/Underground Tank Closed Sites List.

Date of Government Version: 03/28/2007
Date Data Arrived at EDR: 04/24/2007
Date Made Active in Reports: 05/07/2007
Number of Days to Update: 13

Source: Environmental Health Division
Telephone: 805-654-2813
Last EDR Contact: 07/11/2007
Next Scheduled EDR Contact: 10/08/2007
Data Release Frequency: Quarterly

YOLO COUNTY:

Underground Storage Tank Comprehensive Facility Report

Underground storage tank sites located in Yolo county.

Date of Government Version: 04/30/2007
Date Data Arrived at EDR: 05/15/2007
Date Made Active in Reports: 06/25/2007
Number of Days to Update: 41

Source: Yolo County Department of Health
Telephone: 530-666-8646
Last EDR Contact: 07/16/2007
Next Scheduled EDR Contact: 10/15/2007
Data Release Frequency: Annually

OTHER DATABASE(S)

Depending on the geographic area covered by this report, the data provided in these specialty databases may or may not be complete. For example, the existence of wetlands information data in a specific report does not mean that all wetlands in the area covered by the report are included. Moreover, the absence of any reported wetlands information does not necessarily mean that wetlands do not exist in the area covered by the report.

CT MANIFEST: Hazardous Waste Manifest Data

Facility and manifest data. Manifest is a document that lists and tracks hazardous waste from the generator through transporters to a tsd facility.

Date of Government Version: 12/31/2004
Date Data Arrived at EDR: 02/17/2006
Date Made Active in Reports: 04/07/2006
Number of Days to Update: 49

Source: Department of Environmental Protection
Telephone: 860-424-3375
Last EDR Contact: 06/13/2007
Next Scheduled EDR Contact: 09/10/2007
Data Release Frequency: Annually

NJ MANIFEST: Manifest Information

Hazardous waste manifest information.

Date of Government Version: 04/01/2007
Date Data Arrived at EDR: 04/05/2007
Date Made Active in Reports: 05/08/2007
Number of Days to Update: 33

Source: Department of Environmental Protection
Telephone: N/A
Last EDR Contact: 07/03/2007
Next Scheduled EDR Contact: 10/01/2007
Data Release Frequency: Annually

NY MANIFEST: Facility and Manifest Data

Manifest is a document that lists and tracks hazardous waste from the generator through transporters to a TSD facility.

Date of Government Version: 10/26/2006
Date Data Arrived at EDR: 11/29/2006
Date Made Active in Reports: 01/05/2007
Number of Days to Update: 37

Source: Department of Environmental Conservation
Telephone: 518-402-8651
Last EDR Contact: 06/01/2007
Next Scheduled EDR Contact: 08/27/2007
Data Release Frequency: Annually

PA MANIFEST: Manifest Information
Hazardous waste manifest information.

Date of Government Version: 12/31/2005
Date Data Arrived at EDR: 03/17/2006
Date Made Active in Reports: 06/06/2006
Number of Days to Update: 81

Source: Department of Environmental Protection
Telephone: N/A
Last EDR Contact: 06/11/2007
Next Scheduled EDR Contact: 09/10/2007
Data Release Frequency: Annually

RI MANIFEST: Manifest information
Hazardous waste manifest information

Date of Government Version: 04/09/2007
Date Data Arrived at EDR: 04/12/2007
Date Made Active in Reports: 04/27/2007
Number of Days to Update: 15

Source: Department of Environmental Management
Telephone: 401-222-2797
Last EDR Contact: 06/18/2007
Next Scheduled EDR Contact: 09/17/2007
Data Release Frequency: Annually

WI MANIFEST: Manifest Information
Hazardous waste manifest information.

Date of Government Version: 12/31/2006
Date Data Arrived at EDR: 04/27/2007
Date Made Active in Reports: 06/08/2007
Number of Days to Update: 42

Source: Department of Natural Resources
Telephone: N/A
Last EDR Contact: 07/09/2007
Next Scheduled EDR Contact: 10/08/2007
Data Release Frequency: Annually

Oil/Gas Pipelines: This data was obtained by EDR from the USGS in 1994. It is referred to by USGS as GeoData Digital Line Graphs from 1:100,000-Scale Maps. It was extracted from the transportation category including some oil, but primarily gas pipelines.

Electric Power Transmission Line Data
Source: PennWell Corporation
Telephone: (800) 823-6277
This map includes information copyrighted by PennWell Corporation. This information is provided on a best effort basis and PennWell Corporation does not guarantee its accuracy nor warrant its fitness for any particular purpose. Such information has been reprinted with the permission of PennWell.

Sensitive Receptors: There are individuals deemed sensitive receptors due to their fragile immune systems and special sensitivity to environmental discharges. These sensitive receptors typically include the elderly, the sick, and children. While the location of all sensitive receptors cannot be determined, EDR indicates those buildings and facilities - schools, daycares, hospitals, medical centers, and nursing homes - where individuals who are sensitive receptors are likely to be located.

AHA Hospitals:
Source: American Hospital Association, Inc.
Telephone: 312-280-5991
The database includes a listing of hospitals based on the American Hospital Association's annual survey of hospitals.

Medical Centers: Provider of Services Listing
Source: Centers for Medicare & Medicaid Services
Telephone: 410-786-3000
A listing of hospitals with Medicare provider number, produced by Centers of Medicare & Medicaid Services, a federal agency within the U.S. Department of Health and Human Services.

Nursing Homes
Source: National Institutes of Health
Telephone: 301-594-6248
Information on Medicare and Medicaid certified nursing homes in the United States.

Public Schools
Source: National Center for Education Statistics
Telephone: 202-502-7300
The National Center for Education Statistics' primary database on elementary and secondary public education in the United States. It is a comprehensive, annual, national statistical database of all public elementary and secondary schools and school districts, which contains data that are comparable across all states.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Private Schools
Source: National Center for Education Statistics
Telephone: 202-502-7300
The National Center for Education Statistics' primary database on private school locations in the United States.

Daycare Centers: Licensed Facilities
Source: Department of Social Services
Telephone: 916-657-4041

Flood Zone Data: This data, available in select counties across the country, was obtained by EDR in 1999 from the Federal Emergency Management Agency (FEMA). Data depicts 100-year and 500-year flood zones as defined by FEMA.

NWI: National Wetlands Inventory. This data, available in select counties across the country, was obtained by EDR in 2002 and 2005 from the U.S. Fish and Wildlife Service.

STREET AND ADDRESS INFORMATION

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GEOCHECK ®- PHYSICAL SETTING SOURCE ADDENDUM

TARGET PROPERTY ADDRESS

UNIVERSAL STUDIOS
100 UNIVERSAL CITY PLAZA
UNIVERSAL CITY, CA 91608

TARGET PROPERTY COORDINATES

Latitude (North):	34.13830 - 34° 8' 17.9''
Longitude (West):	118.3516 - 118° 21' 5.8''
Universal Tranverse Mercator:	Zone 11
UTM X (Meters):	375378.2
UTM Y (Meters):	3778120.8
Elevation:	741 ft. above sea level

USGS TOPOGRAPHIC MAP

Target Property Map:	34118-B3 BURBANK, CA
Most Recent Revision:	1994

EDR's GeoCheck Physical Setting Source Addendum is provided to assist the environmental professional in forming an opinion about the impact of potential contaminant migration.

Assessment of the impact of contaminant migration generally has two principle investigative components:

1. Groundwater flow direction, and
2. Groundwater flow velocity.

Groundwater flow direction may be impacted by surface topography, hydrology, hydrogeology, characteristics of the soil, and nearby wells. Groundwater flow velocity is generally impacted by the nature of the geologic strata.

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

GROUNDWATER FLOW DIRECTION INFORMATION

Groundwater flow direction for a particular site is best determined by a qualified environmental professional using site-specific well data. If such data is not reasonably ascertainable, it may be necessary to rely on other sources of information, such as surface topographic information, hydrologic information, hydrogeologic data collected on nearby properties, and regional groundwater flow information (from deep aquifers).

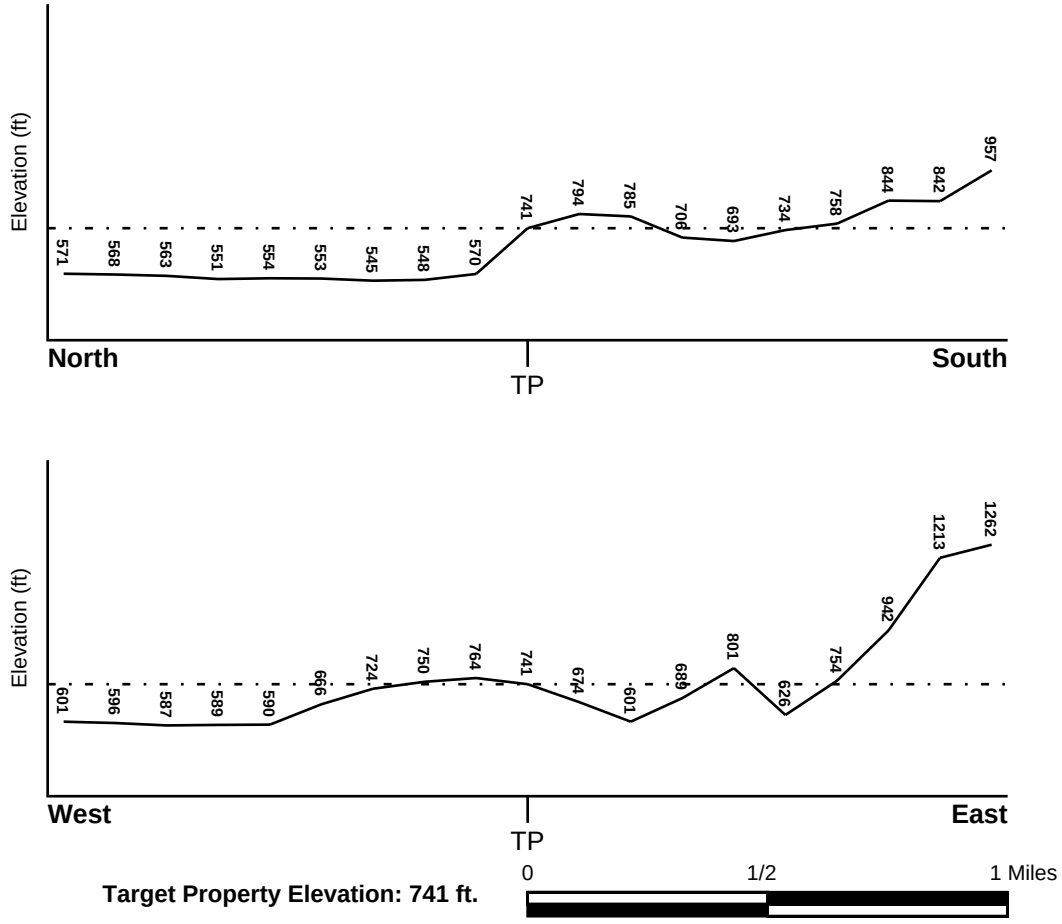
TOPOGRAPHIC INFORMATION

Surface topography may be indicative of the direction of surficial groundwater flow. This information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

TARGET PROPERTY TOPOGRAPHY

General Topographic Gradient: General NNE

SURROUNDING TOPOGRAPHY: ELEVATION PROFILES



Target Property Elevation: 741 ft.

Source: Topography has been determined from the USGS 7.5' Digital Elevation Model and should be evaluated on a relative (not an absolute) basis. Relative elevation information between sites of close proximity should be field verified.

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

HYDROLOGIC INFORMATION

Surface water can act as a hydrologic barrier to groundwater flow. Such hydrologic information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

Refer to the Physical Setting Source Map following this summary for hydrologic information (major waterways and bodies of water).

FEMA FLOOD ZONE

Target Property County	FEMA Flood Electronic Data
LOS ANGELES, CA	YES - refer to the Overview Map and Detail Map

Flood Plain Panel at Target Property:	0650430810B
Additional Panels in search area:	0650180005B 0601370047C 0601370046C 0601370055C 0601370054C

NATIONAL WETLAND INVENTORY

NWI Quad at Target Property	NWI Electronic Data Coverage
BURBANK	YES - refer to the Overview Map and Detail Map

HYDROGEOLOGIC INFORMATION

Hydrogeologic information obtained by installation of wells on a specific site can often be an indicator of groundwater flow direction in the immediate area. Such hydrogeologic information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

Site-Specific Hydrogeological Data*:

Search Radius:	1.25 miles
Status:	Not found

AQUIFLOW®

Search Radius: 1.000 Mile.

EDR has developed the AQUIFLOW Information System to provide data on the general direction of groundwater flow at specific points. EDR has reviewed reports submitted by environmental professionals to regulatory authorities at select sites and has extracted the date of the report, groundwater flow direction as determined hydrogeologically, and the depth to water table.

MAP ID	LOCATION FROM TP	GENERAL DIRECTION GROUNDWATER FLOW
Not Reported		

* ©1996 Site−specific hydrogeological data gathered by CERCLIS Alerts, Inc., Bainbridge Island, WA. All rights reserved. All of the information and opinions presented are those of the cited EPA report(s), which were completed under a Comprehensive Environmental Response Compensation and Liability Information System (CERCLIS) investigation.

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

GROUNDWATER FLOW VELOCITY INFORMATION

Groundwater flow velocity information for a particular site is best determined by a qualified environmental professional using site specific geologic and soil strata data. If such data are not reasonably ascertainable, it may be necessary to rely on other sources of information, including geologic age identification, rock stratigraphic unit and soil characteristics data collected on nearby properties and regional soil information. In general, contaminant plumes move more quickly through sandy-gravelly types of soils than silty-clayey types of soils.

GEOLOGIC INFORMATION IN GENERAL AREA OF TARGET PROPERTY

Geologic information can be used by the environmental professional in forming an opinion about the relative speed at which contaminant migration may be occurring.

ROCK STRATIGRAPHIC UNIT

Era:	Cenozoic
System:	Tertiary
Series:	Miocene
Code:	Tm *(decoded above as Era, System & Series)*

GEOLOGIC AGE IDENTIFICATION

Category: Stratified Sequence

Geologic Age and Rock Stratigraphic Unit Source: P.G. Schruben, R.E. Arndt and W.J. Bawiec, Geology of the Conterminous U.S. at 1:2,500,000 Scale - a digital representation of the 1974 P.B. King and H.M. Beikman Map, USGS Digital Data Series DDS - 11 (1994).

DOMINANT SOIL COMPOSITION IN GENERAL AREA OF TARGET PROPERTY

The U.S. Department of Agriculture's (USDA) Soil Conservation Service (SCS) leads the National Cooperative Soil Survey (NCSS) and is responsible for collecting, storing, maintaining and distributing soil survey information for privately owned lands in the United States. A soil map in a soil survey is a representation of soil patterns in a landscape. Soil maps for STATSGO are compiled by generalizing more detailed (SSURGO) soil survey maps. The following information is based on Soil Conservation Service STATSGO data.

Soil Component Name:	HAMBRIGHT
Soil Surface Texture:	gravelly - loam
Hydrologic Group:	Class D - Very slow infiltration rates. Soils are clayey, have a high water table, or are shallow to an impervious layer.
Soil Drainage Class:	Well drained. Soils have intermediate water holding capacity. Depth to water table is more than 6 feet.

Hydric Status: Soil does not meet the requirements for a hydric soil.

Corrosion Potential - Uncoated Steel:	MODERATE
Depth to Bedrock Min:	> 10 inches
Depth to Bedrock Max:	> 20 inches

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

Soil Layer Information							
	Boundary			Classification			
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil	Permeability Rate (in/hr)	Soil Reaction (pH)
1	0 inches	7 inches	gravelly - loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	COARSE-GRAINED SOILS, Gravels, Gravels with fines, Silty Gravel	Max: 2.00 Min: 0.60	Max: 7.30 Min: 6.10
2	7 inches	16 inches	very gravelly - loam	Granular materials (35 pct. or less passing No. 200), Silty, or Clayey Gravel and Sand.	COARSE-GRAINED SOILS, Gravels, Gravels with fines, Silty Gravel. COARSE-GRAINED SOILS, Gravels, Gravels with fines, Clayey Gravel.	Max: 2.00 Min: 0.60	Max: 7.30 Min: 6.10
3	16 inches	20 inches	unweathered bedrock	Not reported	Not reported	Max: 0.00 Min: 0.00	Max: 0.00 Min: 0.00

OTHER SOIL TYPES IN AREA

Based on Soil Conservation Service STATSGO data, the following additional subordinant soil types may appear within the general area of target property.

Soil Surface Textures: loam
silty clay loam
shaly - clay loam
sandy loam
clay
loamy sand
clay loam

Surficial Soil Types: loam
silty clay loam
shaly - clay loam
sandy loam
clay
loamy sand
clay loam

Shallow Soil Types: silty clay

Deeper Soil Types: weathered bedrock
clay loam

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

LOCAL / REGIONAL WATER AGENCY RECORDS

EDR Local/Regional Water Agency records provide water well information to assist the environmental professional in assessing sources that may impact ground water flow direction, and in forming an opinion about the impact of contaminant migration on nearby drinking water wells.

WELL SEARCH DISTANCE INFORMATION

DATABASE	SEARCH DISTANCE (miles)
Federal USGS	1.000
Federal FRDS PWS	Nearest PWS within 1 mile
State Database	1.000

FEDERAL USGS WELL INFORMATION

MAP ID	WELL ID	LOCATION FROM TP
No Wells Found		

FEDERAL FRDS PUBLIC WATER SUPPLY SYSTEM INFORMATION

MAP ID	WELL ID	LOCATION FROM TP
No PWS System Found		

Note: PWS System location is not always the same as well location.

STATE DATABASE WELL INFORMATION

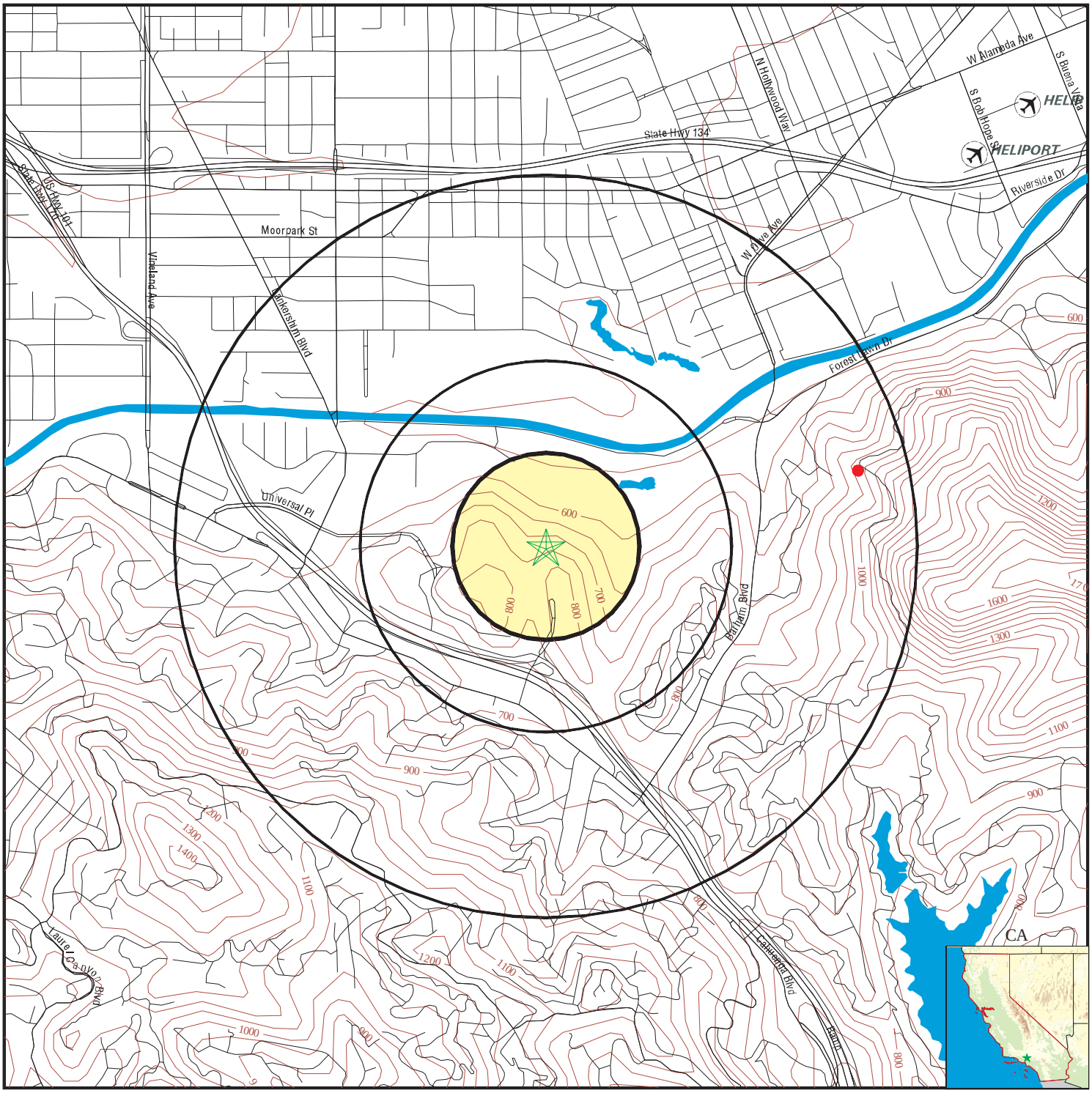
MAP ID	WELL ID	LOCATION FROM TP
No Wells Found		

OTHER STATE DATABASE INFORMATION

STATE OIL/GAS WELL INFORMATION

DISTANCE FROM TP (Miles)		DISTANCE FROM TP (Miles)	
1/2 - 1 Mile	ENE		

PHYSICAL SETTING SOURCE MAP - 1982523.1s



0 1/4 1/2 1 Miles

- County Boundary
- Major Roads
- Contour Lines
- Earthquake Fault Lines
- Airports
- Earthquake epicenter, Richter 5 or greater
- Water Wells
- Public Water Supply Wells
- Cluster of Multiple Icons
- Groundwater Flow Direction
- GI Indeterminate Groundwater Flow at Location
- GV Groundwater Flow Varies at Location
- HD Closest Hydrogeological Data
- Oil, gas or related wells

SITE NAME:	Universal Studios	CLIENT:	Camp, Dresser & McKee, Inc.
ADDRESS:	100 Universal City Plaza	CONTACT:	Dorothy Meyer
	Universal City CA 91608	INQUIRY #:	1982523.1s
LAT/LONG:	34.1383 / 118.3516	DATE:	July 19, 2007 8:25 am

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GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Direction Distance	Database	EDR ID Number

ENE
1/2 - 1 Mile **OIL_GAS** **CA10029863**

Apinumber:	03705413	Operator:	Gaddie Development Co.
Lease:	Not Reported	Well no:	1
Field:	LOS ANGELES COUNTY	Cagaso m3 area:	Not Reported
Map:	W1-2	Status cod:	006
Source:	hud		
Latitude:	34.141256		
Longitude:	-118.336025		
Td:	4198	Sec:	27
Twn:	1N	Rge:	14W
Bm:	SB	X coord:	0
Y coord:	0	Zone:	Not Reported
Spuddate:	Not Reported	Abanddate:	Not Reported
Comments:	Not Reported	District:	1

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS
RADON

AREA RADON INFORMATION

State Database: CA Radon

Radon Test Results

Zip	Total Sites	> 4 Pci/L	Pct. > 4 Pci/L
91608	4	0	0.00

Federal EPA Radon Zone for LOS ANGELES County: 2

Note: Zone 1 indoor average level > 4 pCi/L.
: Zone 2 indoor average level >= 2 pCi/L and <= 4 pCi/L.
: Zone 3 indoor average level < 2 pCi/L.

Federal Area Radon Information for LOS ANGELES COUNTY, CA

Number of sites tested: 63

Area	Average Activity	% <4 pCi/L	% 4-20 pCi/L	% >20 pCi/L
Living Area - 1st Floor	0.711 pCi/L	98%	2%	0%
Living Area - 2nd Floor	Not Reported	Not Reported	Not Reported	Not Reported
Basement	0.933 pCi/L	100%	0%	0%

PHYSICAL SETTING SOURCE RECORDS SEARCHED

TOPOGRAPHIC INFORMATION

USGS 7.5' Digital Elevation Model (DEM)

Source: United States Geologic Survey

EDR acquired the USGS 7.5' Digital Elevation Model in 2002 and updated it in 2006. The 7.5 minute DEM corresponds to the USGS 1:24,000- and 1:25,000-scale topographic quadrangle maps. The DEM provides elevation data with consistent elevation units and projection.

HYDROLOGIC INFORMATION

Flood Zone Data: This data, available in select counties across the country, was obtained by EDR in 1999 from the Federal Emergency Management Agency (FEMA). Data depicts 100-year and 500-year flood zones as defined by FEMA.

NWI: National Wetlands Inventory. This data, available in select counties across the country, was obtained by EDR in 2002 and 2005 from the U.S. Fish and Wildlife Service.

HYDROGEOLOGIC INFORMATION

AQUIFLOW^{R} Information System

Source: EDR proprietary database of groundwater flow information

EDR has developed the AQUIFLOW Information System (AIS) to provide data on the general direction of groundwater flow at specific points. EDR has reviewed reports submitted to regulatory authorities at select sites and has extracted the date of the report, hydrogeologically determined groundwater flow direction and depth to water table information.

GEOLOGIC INFORMATION

Geologic Age and Rock Stratigraphic Unit

Source: P.G. Schruben, R.E. Arndt and W.J. Bawiec, Geology of the Conterminous U.S. at 1:2,500,000 Scale - A digital representation of the 1974 P.B. King and H.M. Beikman Map, USGS Digital Data Series DDS - 11 (1994).

STATSGO: State Soil Geographic Database

Source: Department of Agriculture, Natural Resources Conservation Services

The U.S. Department of Agriculture's (USDA) Natural Resources Conservation Service (NRCS) leads the national Conservation Soil Survey (NCSS) and is responsible for collecting, storing, maintaining and distributing soil survey information for privately owned lands in the United States. A soil map in a soil survey is a representation of soil patterns in a landscape. Soil maps for STATSGO are compiled by generalizing more detailed (SSURGO) soil survey maps.

SSURGO: Soil Survey Geographic Database

Source: Department of Agriculture, Natural Resources Conservation Services (NRCS)

Telephone: 800-672-5559

SSURGO is the most detailed level of mapping done by the Natural Resources Conservation Services, mapping scales generally range from 1:12,000 to 1:63,360. Field mapping methods using national standards are used to construct the soil maps in the Soil Survey Geographic (SSURGO) database. SSURGO digitizing duplicates the original soil survey maps. This level of mapping is designed for use by landowners, townships and county natural resource planning and management.

LOCAL / REGIONAL WATER AGENCY RECORDS

FEDERAL WATER WELLS

PWS: Public Water Systems

Source: EPA/Office of Drinking Water

Telephone: 202-564-3750

Public Water System data from the Federal Reporting Data System. A PWS is any water system which provides water to at least 25 people for at least 60 days annually. PWSs provide water from wells, rivers and other sources.

PWS ENF: Public Water Systems Violation and Enforcement Data
Source: EPA/Office of Drinking Water
Telephone: 202-564-3750
Violation and Enforcement data for Public Water Systems from the Safe Drinking Water Information System (SDWIS) after August 1995. Prior to August 1995, the data came from the Federal Reporting Data System (FRDS).

USGS Water Wells: USGS National Water Inventory System (NWIS)
This database contains descriptive information on sites where the USGS collects or has collected data on surface water and/or groundwater. The groundwater data includes information on wells, springs, and other sources of groundwater.

STATE RECORDS

Water Well Database
Source: Department of Water Resources
Telephone: 916-651-9648

California Drinking Water Quality Database
Source: Department of Health Services
Telephone: 916-324-2319
The database includes all drinking water compliance and special studies monitoring for the state of California since 1984. It consists of over 3,200,000 individual analyses along with well and water system information.

OTHER STATE DATABASE INFORMATION

California Oil and Gas Well Locations
Source: Department of Conservation
Telephone: 916-323-1779

RADON

State Database: CA Radon
Source: Department of Health Services
Telephone: 916-324-2208
Radon Database for California

Area Radon Information
Source: USGS
Telephone: 703-356-4020
The National Radon Database has been developed by the U.S. Environmental Protection Agency (USEPA) and is a compilation of the EPA/State Residential Radon Survey and the National Residential Radon Survey. The study covers the years 1986 - 1992. Where necessary data has been supplemented by information collected at private sources such as universities and research institutions.

EPA Radon Zones
Source: EPA
Telephone: 703-356-4020
Sections 307 & 309 of IRAA directed EPA to list and identify areas of U.S. with the potential for elevated indoor radon levels.

OTHER

Airport Landing Facilities: Private and public use landing facilities
Source: Federal Aviation Administration, 800-457-6656

Epicenters: World earthquake epicenters, Richter 5 or greater
Source: Department of Commerce, National Oceanic and Atmospheric Administration

California Earthquake Fault Lines: The fault lines displayed on EDR's Topographic map are digitized quaternary fault lines, prepared in 1975 by the United State Geological Survey. Additional information (also from 1975) regarding activity at specific fault lines comes from California's Preliminary Fault Activity Map prepared by the California Division of Mines and Geology.

PHYSICAL SETTING SOURCE RECORDS SEARCHED

STREET AND ADDRESS INFORMATION

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EDR Site Report™

UNIVERSAL STUDIOS
UNIVERSAL STUDIOS
UNIVERSAL CITY, CA

Inquiry Number:

July 31, 2007

The Standard in Environmental Risk Information

440 Wheelers Farms Road
Milford, Connecticut 06461

Nationwide Customer Service

Telephone: 1-800-352-0050
Fax: 1-800-231-6802
Internet: www.edrnet.com

TABLE OF CONTENTS

The EDR-Site Report™ is a comprehensive presentation of government filings on a facility identified in a search of over 4 million government records from more than 600 federal, state and local environmental databases. The report is divided into three sections:

Section 1: Facility Summary . . . . . Page 3

Summary of facility filings including a review of the following areas: waste management, waste disposal, multi-media issues, and Superfund liability.

Section 2: Facility Detail Reports . . . . . Page 4

All available detailed information from databases where sites are identified.

Section 3: Databases Searched and Update Information. . . . . Page 5

Name, source, update dates, contact phone number and description of each of the databases searched for this report.

Thank you for your business.
Please contact EDR at 1-800-352-0050
with any questions or comments.

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SECTION 1: FACILITY SUMMARY

FACILITY AREA	FACILITY 1 **UNIVERSAL STUDIOS** UNIVERSAL STUDIOS UNIVERSAL CITY, CA EDR ID #8720528
WASTE MANAGEMENT Facility generates hazardous waste (RCRA)	NO
Facility treats, stores, or disposes of hazardous waste on-site (RCRA/TSDF)	NO
Facility has received Notices of Violations (RCRA/VIOL)	NO
Facility has been subject to RCRA administrative actions (RAATS)	NO
Facility has been subject to corrective actions (CORRACTS)	NO
Facility handles PCBs (PADS)	NO
Facility uses radioactive materials (MLTS)	NO
Facility manages registered aboveground storage tanks (AST)	NO
Facility manages registered underground storage tanks (UST)	NO
Facility has reported leaking underground storage tank incidents (LUST)	NO
Facility has reported emergency releases to the soil (ERNS)	**YES - p4**
Facility has reported hazardous material incidents to DOT (HMIRS)	NO
WASTE DISPOSAL Facility is a Superfund Site (NPL)	NO
Facility has a known or suspect abandoned, inactive or uncontrolled hazardous waste site (CERCLIS)	NO
Facility has a reported Superfund Lien on it (LIENS)	NO
Facility is listed as a state hazardous waste site (SHWS)	NO
Facility has disposed of solid waste on-site (SWF/LF)	NO
MULTIMEDIA Facility uses toxic chemicals and has notified EPA under SARA Title III, Section 313 (TRIS)	NO
Facility produces pesticides and has notified EPA under Section 7 of FIFRA (SSTS)	NO
Facility manufactures or imports toxic chemicals on the TSCA list (TSCA)	NO
Facility has inspections under FIFRA, TSCA or EPCRA (FTTS)	NO
Facility is listed in EPA's index system (FINDS)	NO
Facility is listed in a county/local unique database (LOCAL)	NO
POTENTIAL SUPERFUND LIABILITY Facility has a list of potentially responsible parties PRP	NO
TOTAL (YES)	1

SECTION 2: FACILITY DETAIL REPORTS

WASTE MANAGEMENT

Facility has reported emergency releases to the soil

DATABASE: Emergency Response Notification System (ERNS)

UNIVERSAL STUDIOS
UNIVERSAL STUDIOS
UNIVERSAL CITY, CA
EDR ID #8720528

ERNS:

Site ID:	8720528
Site location:	UNIVERSAL STUDIOS UNIVERSAL CITY, CA
County:	LOS ANGELES
Report number:	Not reported
EPA region:	09
Spill date:	Not reported
Spill time:	00:00
Medium affected:	Air
Damage:	False
Damage $ amount:	0.00
Number of injured:	0
Number of fatalities:	0
Notes:	Not reported
Discharger:	UNIVERSAL STUDIOS
Discharger address:	100 UNIVERSAL CITY PLAZA UNIVERSAL CITY, CA 91608
Discharger county:	LOS ANGELES
C.G. Unit:	Not reported
EPA notified:	True
Initial report:	True
Updated report:	True
Spill cause:	Other
Spilled material:	SULFUR
Spill total qty:	0.00 UNK
In water:	0.00
DOT #:	UN1350
CAS:	770434
Quantity (lbs):	0.00
Description:	RP MAKES EXPLOSIONS/RELEASE TO AIR. RP MAKES EXPLOSIONS/RELEASE TO AIR.
Action:	CU=NOT POSS
Comments:	CA-OES REFERRED PUB TO RAQMD/PUB= MR BENSON 818 506-2923

SECTION 3: DATABASES SEARCHED AND UPDATE DATES

To maintain currency of the following federal, state and local databases, EDR contacts the appropriate government agency on a monthly or quarterly basis as required.

Elapsed ASTM days: Provides confirmation that this report meets or exceeds the 90-day updating requirement of the ASTM standard.

WASTE MANAGEMENT

RCRA: Resource Conservation and Recovery Act Information
Source: EPA
Telephone: 800-424-9346
RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. RCRAInfo replaces the data recording and reporting abilities of the Resource Conservation and Recovery Information System (RCRIS). The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Conditionally exempt small quantity generators (CESQGs) generate less than 100 kg of hazardous waste, or less than 1 kg of acutely hazardous waste per month. Small quantity generators (SQGs) generate between 100 kg and 1,000 kg of hazardous waste per month. Large quantity generators (LQGs) generate over 1,000 kilograms (kg) of hazardous waste, or over 1 kg of acutely hazardous waste per month. Transporters are individuals or entities that move hazardous waste from the generator off-site to a facility that can recycle, treat, store, or dispose of the waste. TSDFs treat, store, or dispose of the waste.

Date of Government Version: 06/13/2006
Database Release Frequency: Quarterly
Date of Last EDR Contact: 07/16/2007
Date of Next Scheduled Update: 09/17/2007

BRS: Biennial Reporting System
Source: EPA/NTIS
Telephone: 800-424-9346
The Biennial Reporting System is a national system administered by the EPA that collects data on the generation and management of hazardous waste. BRS captures detailed data from two groups: Large Quantity Generators (LQG) and Treatment, Storage, and Disposal Facilities.

Date of Government Version: 12/31/2005
Database Release Frequency: Biennially
Date of Last EDR Contact: 06/12/2007
Date of Next Scheduled Update: 09/10/2007

RAATS: RCRA Administrative Action Tracking System
Source: EPA
Telephone: 202-564-4104
RCRA Administration Action Tracking System. RAATS contains records based on enforcement actions issued under RCRA pertaining to major violators and includes administrative and civil actions brought by the EPA. For administration actions after September 30, 1995, data entry in the RAATS database was discontinued. EPA will retain a copy of the database for historical records. It was necessary to terminate RAATS because a decrease in agency resources made it impossible to continue to update the information contained in the database.

Date of Government Version: 04/17/1995
Database Release Frequency: No Update Planned
Date of Last EDR Contact: 06/04/2007
Date of Next Scheduled Update: 09/03/2007

CORRACTS: Corrective Action Report
Source: EPA
Telephone: 800-424-9346
CORRACTS identifies hazardous waste handlers with RCRA corrective action activity.

Date of Government Version: 03/14/2007
Database Release Frequency: Quarterly
Date of Last EDR Contact: 06/04/2007
Date of Next Scheduled Update: 09/03/2007

PADS: PCB Activity Database System
Source: EPA
Telephone: 202-566-0500
PCB Activity Database. PADS Identifies generators, transporters, commercial storers and/or brokers and disposers of PCB's who are required to notify the EPA of such activities.

Date of Government Version: 10/17/2006
Database Release Frequency: Annually
Date of Last EDR Contact: 06/08/2007
Date of Next Scheduled Update: 08/06/2007

SECTION 3: DATABASES SEARCHED AND UPDATE DATES

...Continued...

MLTS: Material Licensing Tracking System
Source: Nuclear Regulatory Commission
Telephone: 301-415-7169
MLTS is maintained by the Nuclear Regulatory Commission and contains a list of approximately 8,100 sites which possess or use radioactive materials and which are subject to NRC licensing requirements. To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 04/05/2007
Database Release Frequency: Quarterly
Date of Last EDR Contact: 07/02/2007
Date of Next Scheduled Update: 10/01/2007

CA AST: Aboveground Petroleum Storage Tank Facilities
Source: State Water Resources Control Board
Telephone: 916-341-5712
Registered Aboveground Storage Tanks.

Date of Government Version: 05/01/2007
Database Release Frequency: Quarterly
Date of Last EDR Contact: 07/30/2007
Date of Next Scheduled Update: 10/29/2007

CA UST: Active UST Facilities
Source: SWRCB
Telephone: 866-480-1028
Active UST facilities gathered from the local regulatory agencies

Date of Government Version: 07/10/2007
Database Release Frequency: Semi-Annually
Date of Last EDR Contact: 07/11/2007
Date of Next Scheduled Update: 10/08/2007

CA LUST: Geotracker's Leaking Underground Fuel Tank Report
Source: State Water Resources Control Board
Telephone: Not reported
Leaking Underground Storage Tank Incident Reports. LUST records contain an inventory of reported leaking underground storage tank incidents. Not all states maintain these records, and the information stored varies by state. For more information on a particular leaking underground storage tank sites, please contact the appropriate regulatory agency.

Date of Government Version: 04/10/2007
Database Release Frequency: Quarterly
Date of Last EDR Contact: 07/11/2007
Date of Next Scheduled Update: 10/08/2007

ERNS: Emergency Response Notification System
Source: National Response Center, United States Coast Guard
Telephone: 202-267-2180
Emergency Response Notification System. ERNS records and stores information on reported releases of oil and hazardous substances.

Date of Government Version: 12/31/2006
Database Release Frequency: Annually
Date of Last EDR Contact: 07/23/2007
Date of Next Scheduled Update: 10/22/2007

HMIRS: Hazardous Materials Information Reporting System
Source: U.S. Department of Transportation
Telephone: 202-366-4555
Hazardous Materials Incident Report System. HMIRS contains hazardous material spill incidents reported to DOT.

Date of Government Version: 03/05/2007
Database Release Frequency: Annually
Date of Last EDR Contact: 07/18/2007
Date of Next Scheduled Update: 10/15/2007

WASTE DISPOSAL

NPL: National Priority List
Source: EPA
Telephone: Not reported
National Priorities List (Superfund). The NPL is a subset of CERCLIS and identifies over 1,200 sites for priority cleanup under the Superfund Program. NPL sites may encompass relatively large areas. As such, EDR provides polygon coverage for over 1,000 NPL site boundaries produced by EPA's Environmental Photographic Interpretation Center (EPIC) and regional EPA offices.

Date of Government Version: 04/20/2007
Date Made Active at EDR: 07/05/2007
Database Release Frequency: Quarterly
Date of Data Arrival at EDR: 05/03/2007
Elapsed ASTM Days: 63
Date of Last EDR Contact: 05/03/2007

Proposed NPL: Proposed National Priority List Sites
Source: EPA
Telephone: Not reported
A site that has been proposed for listing on the National Priorities List through the issuance of a proposed rule in the Federal Register. EPA then accepts public comments on the site, responds to the comments, and places on the NPL those sites that continue to meet the requirements for listing.

Date of Government Version: 04/20/2007
Date Made Active at EDR: 07/05/2007
Database Release Frequency: Quarterly
Date of Data Arrival at EDR: 05/03/2007
Elapsed ASTM Days: 63
Date of Last EDR Contact: 05/03/2007

DELISTED NPL: National Priority List Deletions
Source: EPA
Telephone: Not reported
The National Oil and Hazardous Substances Pollution Contingency Plan (NCP) establishes the criteria that the EPA uses to delete sites from the NPL. In accordance with 40 CFR 300.425.(e), sites may be deleted from the NPL where no further response is appropriate.

Date of Government Version: 04/20/2007
Date Made Active at EDR: 06/25/2007
Database Release Frequency: Quarterly
Date of Data Arrival at EDR: 05/03/2007
Elapsed ASTM Days: 53
Date of Last EDR Contact: 05/03/2007

CERCLIS: Comprehensive Environmental Response, Compensation, and Liability Information System
Source: EPA
Telephone: 703-412-9810
CERCLIS contains data on potentially hazardous waste sites that have been reported to the USEPA by states, municipalities, private companies and private persons, pursuant to Section 103 of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). CERCLIS contains sites which are either proposed to or on the National Priorities List (NPL) and sites which are in the screening and assessment phase for possible inclusion on the NPL.

Date of Government Version: 02/27/2007
Date Made Active at EDR: 04/27/2007
Database Release Frequency: Quarterly
Date of Data Arrival at EDR: 03/21/2007
Elapsed ASTM Days: 37
Date of Last EDR Contact: 06/20/2007

CERCLIS-NFRAP: CERCLIS No Further Remedial Action Planned
Source: EPA
Telephone: 703-412-9810
Archived sites are sites that have been removed and archived from the inventory of CERCLIS sites. Archived status indicates that, to the best of EPA's knowledge, assessment at a site has been completed and that EPA has determined no further steps will be taken to list this site on the National Priorities List (NPL), unless information indicates this decision was not appropriate or other considerations require a recommendation for listing at a later time. This decision does not necessarily mean that there is no hazard associated with a given site; it only means that, based upon available information, the location is not judged to be a potential NPL site.

Date of Government Version: 03/21/2007
Database Release Frequency: Quarterly
Date of Last EDR Contact: 06/15/2007
Date of Next Scheduled Update: 09/17/2007

ROD: Records Of Decision
Source: EPA
Telephone: 703-416-0223
Record of Decision. ROD documents mandate a permanent remedy at an NPL (Superfund) site containing technical and health information to aid in the cleanup.

Date of Government Version: 03/27/2007
Database Release Frequency: Annually
Date of Last EDR Contact: 07/02/2007
Date of Next Scheduled Update: 10/01/2007

NPL LIENS: Federal Superfund Liens
Source: EPA
Telephone: 202-564-4267
Federal Superfund Liens. Under the authority granted the USEPA by CERCLA of 1980, the USEPA has the authority to file liens against real property in order to recover remedial action expenditures or when the property owner received notification of potential liability. USEPA compiles a listing of filed notices of Superfund Liens.

Date of Government Version: 10/15/1991
Date Made Active at EDR: 03/30/1994
Database Release Frequency: No Update Planned
Date of Data Arrival at EDR: 02/02/1994
Elapsed ASTM Days: 56
Date of Last EDR Contact: 05/21/2007

SECTION 3: DATABASES SEARCHED AND UPDATE DATES

...Continued...

CA SWF/LF (SWIS): Solid Waste Information System
Source: Integrated Waste Management Board
Telephone: 916-341-6320
Active, Closed and Inactive Landfills. SWF/LF records typically contain an inve ntory of solid waste disposal facilities or landfills. These may be active or i nactive facilities or open dumps that failed to meet RCRA Section 4004 criteria for solid waste landfills or disposal sites.

Date of Government Version: 06/11/2007 Date of Last EDR Contact: 06/13/2007
Database Release Frequency: Quarterly Date of Next Scheduled Update: 09/10/2007

MULTIMEDIA

TRIS: Toxic Chemical Release Inventory System
Source: EPA
Telephone: 202-566-0250
Toxic Release Inventory System. TRIS identifies facilities which release toxic chemicals to the air, water and land in reportable quantities under SARA Title III Section 313.

Date of Government Version: 12/31/2005 Date of Last EDR Contact: 06/19/2007
Database Release Frequency: Annually Date of Next Scheduled Update: 09/17/2007

SSTS: Section 7 Tracking Systems
Source: EPA
Telephone: 202-564-4203
Section 7 of the Federal Insecticide, Fungicide and Rodenticide Act, as amended (92 Stat. 829) requires all registered pesticide-producing establishments to submit a report to the Environmental Protection Agency by March 1st each year. Each establishment must report the types and amounts of pesticides, active ingredients and devices being produced, and those having been produced and sold or distributed in the past year.

Date of Government Version: 12/31/2005 Date of Last EDR Contact: 07/16/2007
Database Release Frequency: Annually Date of Next Scheduled Update: 10/15/2007

TSCA: Toxic Substances Control Act
Source: EPA
Telephone: 202-260-5521
Toxic Substances Control Act. TSCA identifies manufacturers and importers of chemical substances included on the TSCA Chemical Substance Inventory list. It includes data on the production volume of these substances by plant site.

Date of Government Version: 12/31/2002 Date of Last EDR Contact: 07/30/2007
Database Release Frequency: N/A Date of Next Scheduled Update: 10/15/2007

FTTS: FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)
Source: EPA/Office of Prevention, Pesticides and Toxic Substances
Telephone: 202-566-1667
FTTS tracks administrative cases and pesticide enforcement actions and compliance activities related to FIFRA, TSCA and EPCRA (Emergency Planning and Community Right-to-Know Act). To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 04/13/2007 Date of Last EDR Contact: 06/15/2007
Database Release Frequency: Quarterly Date of Next Scheduled Update: 09/17/2007

FTTS INSP: FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)
Source: EPA
Telephone: 202-566-1667
A listing of FIFRA/TSCA Tracking System (FTTS) inspections and enforcements.

Date of Government Version: 04/13/2007 Date of Last EDR Contact: 06/15/2007
Database Release Frequency: Quarterly Date of Next Scheduled Update: 09/17/2007

SECTION 3: DATABASES SEARCHED AND UPDATE DATES

...Continued...

FINDS: Facility Index System/Facility Registry System
Source: EPA
Telephone: Not reported
Facility Index System. FINDS contains both facility information and 'pointers' to other sources that contain more detail. EDR includes the following FINDS databases in this report: PCS (Permit Compliance System), AIRS (Aerometric Information Retrieval System), DOCKET (Enforcement Docket used to manage and track information on civil judicial enforcement cases for all environmental statutes), FURS (Federal Underground Injection Control), C-DOCKET (Criminal Docket System used to track criminal enforcement actions for all environmental statutes), FFIS (Federal Facilities Information System), STATE (State Environmental Laws and Statutes), and PADS (PCB Activity Data System).

Date of Government Version: 04/12/2007
Database Release Frequency: Quarterly
Date of Last EDR Contact: 07/02/2007
Date of Next Scheduled Update: 10/01/2007

RMP: Risk Management Plans
Source: Environmental Protection Agency
Telephone: 202-564-8600
When Congress passed the Clean Air Act Amendments of 1990, it required EPA to publish regulations and guidance for chemical accident prevention at facilities using extremely hazardous substances. The Risk Management Program Rule (RMP Rule) was written to implement Section 112(r) of these amendments. The rule, which built upon existing industry codes and standards, requires companies of all sizes that use certain flammable and toxic substances to develop a Risk Management Program, which includes a(n): Hazard assessment that details the potential effects of an accidental release, an accident history of the last five years, and an evaluation of worst-case and alternative accidental releases; Prevention program that includes safety precautions and maintenance, monitoring, and employee training measures; and Emergency response program that spells out emergency health care, employee training measures and procedures for informing the public and response agencies (e.g the fire department) should an accident occur.

Date of Government Version: 06/01/2007
Database Release Frequency: Varies
Date of Last EDR Contact: 05/21/2007
Date of Next Scheduled Update: 08/20/2007

STORMWATER: Storm Water General Permits
Source: Environmental Protection Agency
Telephone: 202-564-0746
A listing of all facilities with Storm Water General Permits.

Date of Government Version: 06/02/2005
Database Release Frequency: Quarterly
Date of Last EDR Contact: 07/03/2007
Date of Next Scheduled Update: 10/01/2007

US ENG CONTROLS: Engineering Controls Sites List
Source: Environmental Protection Agency
Telephone: 703-603-8905
A listing of sites with engineering controls in place. Engineering controls include various forms of caps, building foundations, liners, and treatment methods to create pathway elimination for regulated substances to enter environmental media or effect human health.

Date of Government Version: 04/20/2007
Database Release Frequency: Varies
Date of Last EDR Contact: 07/02/2007
Date of Next Scheduled Update: 10/01/2007

US INST CONTROL: Sites with Institutional Controls
Source: Environmental Protection Agency
Telephone: 703-603-8905
A listing of sites with institutional controls in place. Institutional controls include administrative measures, such as groundwater use restrictions, construction restrictions, property use restrictions, and post remediation care requirements intended to prevent exposure to contaminants remaining on site. Deed restrictions are generally required as part of the institutional controls.

Date of Government Version: 04/20/2007
Database Release Frequency: Varies
Date of Last EDR Contact: 07/02/2007
Date of Next Scheduled Update: 10/01/2007

INDIAN LUST R1: Leaking Underground Storage Tanks on Indian Land
Source: EPA Region 1
Telephone: 617-918-1313
A listing of leaking underground storage tank locations on Indian Land.

Date of Government Version: 12/01/2006
Database Release Frequency: Varies
Date of Last EDR Contact: 05/21/2007
Date of Next Scheduled Update: 08/20/2007

SECTION 3: DATABASES SEARCHED AND UPDATE DATES

...Continued...

RADINFO: Radiation Information Database
Source: Environmental Protection Agency
Telephone: 202-343-9775
The Radiation Information Database (RADINFO) contains information about facilities that are regulated by U.S. Environmental Protection Agency (EPA) regulations for radiation and radioactivity.

Date of Government Version: 05/01/2007
Database Release Frequency: Quarterly
Date of Last EDR Contact: 05/03/2007
Date of Next Scheduled Update: 07/30/2007

LUCIS: Land Use Control Information System
Source: Department of the Navy
Telephone: 843-820-7326
LUCIS contains records of land use control information pertaining to the former Navy Base Realignment and Closure properties.

Date of Government Version: 12/09/2005
Database Release Frequency: Varies
Date of Last EDR Contact: 06/11/2007
Date of Next Scheduled Update: 09/10/2007

CDL: Clandestine Drug Labs
Source: Drug Enforcement Administration
Telephone: 202-307-1000
A listing of clandestine drug lab locations. The U.S. Department of Justice ("the Department") provides this web site as a public service. It contains addresses of some locations where law enforcement agencies reported they found chemicals or other items that indicated the presence of either clandestine drug laboratories or dumpsites. In most cases, the source of the entries is not the Department, and the Department has not verified the entry and does not guarantee its accuracy. Members of the public must verify the accuracy of all entries by, for example, contacting local law enforcement and local health departments.

Date of Government Version: 12/01/2006
Database Release Frequency: Quarterly
Date of Last EDR Contact: 06/29/2007
Date of Next Scheduled Update: 09/24/2007

CA HIST CAL-SITES: Historical Calsites Database
Source: Department of Toxic Substance Control
Telephone: 916-323-3400
The Calsites database contains potential or confirmed hazardous substance release properties. In 1996, California EPA reevaluated and significantly reduced the number of sites in the Calsites database. No longer updated by the state agency. It has been replaced by ENVIROSTOR.

Date of Government Version: 08/08/2005
Database Release Frequency: No Update Planned
Date of Last EDR Contact: 05/25/2007
Date of Next Scheduled Update: 08/27/2007

CA CA BOND EXP. PLAN: Bond Expenditure Plan
Source: Department of Health Services
Telephone: 916-255-2118
Department of Health Services developed a site-specific expenditure plan as the basis for an appropriation of Hazardous Substance Cleanup Bond Act funds. It is not updated.

Date of Government Version: 01/01/1989
Database Release Frequency: No Update Planned
Date of Last EDR Contact: 05/31/1994
Date of Next Scheduled Update: Not reported

CA SCH: School Property Evaluation Program
Source: Department of Toxic Substances Control
Telephone: 916-323-3400
This category contains proposed and existing school sites that are being evaluated by DTSC for possible hazardous materials contamination. In some cases, these properties may be listed in the CalSites category depending on the level of threat to public health and safety or the environment they pose.

Date of Government Version: 05/29/2007
Database Release Frequency: Quarterly
Date of Last EDR Contact: 05/30/2007
Date of Next Scheduled Update: 08/27/2007

SECTION 3: DATABASES SEARCHED AND UPDATE DATES

...Continued...

CA TOXIC PITS: Toxic Pits Cleanup Act Sites
Source: State Water Resources Control Board
Telephone: 916-227-4364
Toxic PITS Cleanup Act Sites. TOXIC PITS identifies sites suspected of containing hazardous substances where cleanup has not yet been completed.

Date of Government Version: 07/01/1995
Database Release Frequency: No Update Planned
Date of Last EDR Contact: 07/30/2007
Date of Next Scheduled Update: 10/29/2007

CA WMUDS/SWAT: Waste Management Unit Database
Source: State Water Resources Control Board
Telephone: 916-227-4448
Waste Management Unit Database System. WMUDS is used by the State Water Resources Control Board staff and the Regional Water Quality Control Boards for program tracking and inventory of waste management units. WMUDS is composed of the following databases: Facility Information, Scheduled Inspections Information, Waste Management Unit Information, SWAT Program Information, SWAT Report Summary Information, SWAT Report Summary Data, Chapter 15 (formerly Subchapter 15) Information, Chapter 15 Monitoring Parameters, TPCA Program Information, RCRA Program Information, Closure Information, and Interested Parties Information.

Date of Government Version: 04/01/2000
Database Release Frequency: Quarterly
Date of Last EDR Contact: 06/04/2007
Date of Next Scheduled Update: 09/03/2007

CA CA WDS: Waste Discharge System
Source: State Water Resources Control Board
Telephone: 916-341-5227
Sites which have been issued waste discharge requirements.

Date of Government Version: 06/19/2007
Database Release Frequency: Quarterly
Date of Last EDR Contact: 06/20/2007
Date of Next Scheduled Update: 09/17/2007

CA CORTESE: "Cortese" Hazardous Waste & Substances Sites List
Source: CAL EPA/Office of Emergency Information
Telephone: 916-323-3400
The sites for the list are designated by the State Water Resource Control Board (LUST), the Integrated Waste Board (SWF/LS), and the Department of Toxic Substances Control (Cal-Sites). This listing is no longer updated by the state agency.

Date of Government Version: 04/01/2001
Database Release Frequency: No Update Planned
Date of Last EDR Contact: 07/23/2007
Date of Next Scheduled Update: 10/22/2007

CA SWRCY: Recycler Database
Source: Department of Conservation
Telephone: 916-323-3836
A listing of recycling facilities in California.

Date of Government Version: 04/09/2007
Database Release Frequency: Quarterly
Date of Last EDR Contact: 07/11/2007
Date of Next Scheduled Update: 10/08/2007

CA CA FID UST: Facility Inventory Database
Source: California Environmental Protection Agency
Telephone: 916-341-5851
The Facility Inventory Database (FID) contains a historical listing of active and inactive underground storage tank locations from the State Water Resource Control Board. Refer to local/county source for current data.

Date of Government Version: 10/31/1994
Database Release Frequency: No Update Planned
Date of Last EDR Contact: 12/28/1998
Date of Next Scheduled Update: Not reported

CA SLIC: Statewide SLIC Cases
Source: State Water Resources Control Board
Telephone: 866-480-1028
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 04/10/2007
Database Release Frequency: Varies
Date of Last EDR Contact: 07/11/2007
Date of Next Scheduled Update: 10/08/2007

SECTION 3: DATABASES SEARCHED AND UPDATE DATES

...Continued...

CA Sacramento Co. CS: CS - Contaminated Sites
Source: Sacramento County Environmental Management
Telephone: 916-875-8406
List of sites where unauthorized releases of potentially hazardous materials have occurred.

Date of Government Version: 05/04/2007
Database Release Frequency: Quarterly
Date of Last EDR Contact: 07/31/2007
Date of Next Scheduled Update: 10/29/2007

CA CS: Contaminated Sites
Source: Alameda County Environmental Health Services
Telephone: 510-567-6700
A listing of contaminated sites overseen by the Toxic Release Program (oil and groundwater contamination from chemical releases and spills) and the Leaking Underground Storage Tank Program (soil and ground water contamination from leaking petroleum USTs).

Date of Government Version: 04/24/2007
Database Release Frequency: Semi-Annually
Date of Last EDR Contact: 07/23/2007
Date of Next Scheduled Update: 10/22/2007

CA HIST LUST SANTA CLARA: Fuel Leak Site Activity Report
Source: Santa Clara Valley Water District
Telephone: 408-265-2600
A listing of open and closed leaking underground storage tanks. This listing is no longer updated by the county. Leaking underground storage tanks are now handled by the Department of Environmental Health.

Date of Government Version: 03/29/2005
Database Release Frequency: No Update Planned
Date of Last EDR Contact: 06/25/2007
Date of Next Scheduled Update: 09/24/2007

CA AOCONCERN: San Gabriel Valley Areas of Concern
Source: EPA Region 9
Telephone: 415-972-3178
San Gabriel Valley areas where VOC contamination is at or above the MCL as designated by region 9 EPA office.

Date of Government Version: 12/31/1998
Database Release Frequency: No Update Planned
Date of Last EDR Contact: 07/16/2007
Date of Next Scheduled Update: 10/15/2007

CA HIST UST: Hazardous Substance Storage Container Database
Source: State Water Resources Control Board
Telephone: 916-341-5851
The Hazardous Substance Storage Container Database is a historical listing of UST sites. Refer to local/county source for current data.

Date of Government Version: 10/15/1990
Database Release Frequency: No Update Planned
Date of Last EDR Contact: 07/26/2001
Date of Next Scheduled Update: Not reported

CA LIENS: Environmental Liens Listing
Source: Department of Toxic Substances Control
Telephone: 916-323-3400
A listing of property locations with environmental liens for California where DTSC is a lien holder.

Date of Government Version: 05/07/2007
Database Release Frequency: Varies
Date of Last EDR Contact: 02/22/2007
Date of Next Scheduled Update: 08/06/2007

CA CONTRA COSTA CO. SITE LIST: Site List
Source: Contra Costa Health Services Department
Telephone: 925-646-2286
List includes sites from the underground tank, hazardous waste generator and business plan/2185 programs.

Date of Government Version: 05/29/2007
Database Release Frequency: Semi-Annually
Date of Last EDR Contact: 05/29/2007
Date of Next Scheduled Update: 08/27/2007

CA PLACER CO. MS: Master List of Facilities
Source: Placer County Health and Human Services
Telephone: 530-889-7312
List includes aboveground tanks, underground tanks and cleanup sites.

Date of Government Version: 04/04/2007
Database Release Frequency: Semi-Annually
Date of Last EDR Contact: 06/18/2007
Date of Next Scheduled Update: 09/17/2007

CA SAN JOSE HAZMAT: Hazardous Material Facilities
Source: City of San Jose Fire Department
Telephone: 408-277-4659
Hazardous material facilities, including underground storage tank sites.

Date of Government Version: 06/11/2007
Database Release Frequency: Annually
Date of Last EDR Contact: 06/04/2007
Date of Next Scheduled Update: 09/03/2007

CA Fresno Co. CUPA: CUPA Resources List
Source: Dept. of Community Health
Telephone: 559-445-3271
Certified Unified Program Agency. CUPA's are responsible for implementing a unified hazardous materials and hazardous waste management regulatory program. The agency provides oversight of businesses that deal with hazardous materials, operate underground storage tanks or aboveground storage tanks.

Date of Government Version: 04/09/2007
Database Release Frequency: Semi-Annually
Date of Last EDR Contact: 07/17/2007
Date of Next Scheduled Update: 08/06/2007

CA SWEEPS UST: SWEEPS UST Listing
Source: State Water Resources Control Board
Telephone: Not reported
Statewide Environmental Evaluation and Planning System. This underground storage tank listing was updated and maintained by a company contacted by the SWRCB in the early 1980's. The listing is no longer updated or maintained. The local agency is the contact for more information on a site on the SWEEPS list.

Date of Government Version: 06/01/1994
Database Release Frequency: No Update Planned
Date of Last EDR Contact: 06/03/2005
Date of Next Scheduled Update: Not reported

CA CHMIRS: California Hazardous Material Incident Report System
Source: Office of Emergency Services
Telephone: 916-845-8400
California Hazardous Material Incident Reporting System. CHMIRS contains information on reported hazardous material incidents (accidental releases or spills).

Date of Government Version: 12/31/2005
Database Release Frequency: Varies
Date of Last EDR Contact: 05/21/2007
Date of Next Scheduled Update: 08/20/2007

CA NOTIFY 65: Proposition 65 Records
Source: State Water Resources Control Board
Telephone: 916-445-3846
Proposition 65 Notification Records. NOTIFY 65 contains facility notifications about any release which could impact drinking water and thereby expose the public to a potential health risk.

Date of Government Version: 10/21/1993
Database Release Frequency: No Update Planned
Date of Last EDR Contact: 07/16/2007
Date of Next Scheduled Update: 10/15/2007

CA LA Co. Site Mitigation: Site Mitigation List
Source: Community Health Services
Telephone: 323-890-7806
Industrial sites that have had some sort of spill or complaint.

Date of Government Version: 12/04/2006
Database Release Frequency: Annually
Date of Last EDR Contact: 05/14/2007
Date of Next Scheduled Update: 08/13/2007

SECTION 3: DATABASES SEARCHED AND UPDATE DATES

...Continued...

CA Orange Co. Industrial Site: List of Industrial Site Cleanups
Source: Health Care Agency
Telephone: 714-834-3446
Petroleum and non-petroleum spills.

Date of Government Version: 06/01/2007
Database Release Frequency: Annually
Date of Last EDR Contact: 06/06/2007
Date of Next Scheduled Update: 09/03/2007

CA DEED: Deed Restriction Listing
Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Site Mitigation and Brownfields Reuse Program Facility Sites with Deed Restrictions & Hazardous Waste Management Program Facility Sites with Deed / Land Use Restriction. The DTSC Site Mitigation and Brownfields Reuse Program (SMBRP) list includes sites cleaned up under the program's oversight and generally does not include current or former hazardous waste facilities that required a hazardous waste facility permit. The list represents deed restrictions that are active. Some sites have multiple deed restrictions. The DTSC Hazardous Waste Management Program (HWMP) has developed a list of current or former hazardous waste facilities that have a recorded land use restriction at the local county recorder's office. The land use restrictions on this list were required by the DTSC HWMP as a result of the presence of hazardous substances that remain on site after the facility (or part of the facility) has been closed or cleaned up. The types of land use restriction include deed notice, deed restriction, or a land use restriction that binds current and future owners.

Date of Government Version: 04/03/2007
Database Release Frequency: Semi-Annually
Date of Last EDR Contact: 07/03/2007
Date of Next Scheduled Update: 10/01/2007

CA VCP: Voluntary Cleanup Program Properties
Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Contains low threat level properties with either confirmed or unconfirmed releases and the project proponents have request that DTSC oversee investigation and/or cleanup activities and have agreed to provide coverage for DTSC's costs.

Date of Government Version: 05/29/2007
Database Release Frequency: Quarterly
Date of Last EDR Contact: 05/30/2007
Date of Next Scheduled Update: 08/27/2007

CA DRYCLEANERS: Cleaner Facilities
Source: Department of Toxic Substance Control
Telephone: 916-327-4498
A list of drycleaner related facilities that have EPA ID numbers. These are facilities with certain SIC codes: power laundries, family and commercial; garment pressing and cleaner's agents; linen supply; coin-operated laundries and cleaning; drycleaning plants, except rugs; carpet and upholster cleaning; industrial launderers; laundry and garment services.

Date of Government Version: 04/18/2005
Database Release Frequency: Annually
Date of Last EDR Contact: 07/30/2007
Date of Next Scheduled Update: 10/01/2007

CA LOS ANGELES CO. HMS: HMS: Street Number List
Source: Department of Public Works
Telephone: 626-458-3517
Industrial Waste and Underground Storage Tank Sites.

Date of Government Version: 01/31/2007
Database Release Frequency: Semi-Annually
Date of Last EDR Contact: 05/14/2007
Date of Next Scheduled Update: 08/13/2007

CA VENTURA CO. BWT: Business Plan, Hazardous Waste Producers, and Operating Underground Tanks
Source: Ventura County Environmental Health Division
Telephone: 805-654-2813
The BWT list indicates by site address whether the Environmental Health Division has Business Plan (B), Waste Producer (W), and/or Underground Tank (T) information.

Date of Government Version: 05/30/2007
Database Release Frequency: Quarterly
Date of Last EDR Contact: 06/12/2007
Date of Next Scheduled Update: 09/10/2007

CA WIP: Well Investigation Program Case List
Source: Los Angeles Water Quality Control Board
Telephone: 213-576-6726
Well Investigation Program case in the San Gabriel and San Fernando Valley area.

Date of Government Version: 03/01/2007
Database Release Frequency: Varies
Date of Last EDR Contact: 07/27/2007
Date of Next Scheduled Update: 10/22/2007

CA CDL: Clandestine Drug Labs
Source: Department of Toxic Substances Control
Telephone: 916-255-6504
A listing of drug lab locations. Listing of a location in this database does not indicate that any illegal drug lab materials were or were not present there, and does not constitute a determination that the location either requires or does not require additional cleanup work.

Date of Government Version: 12/31/2006
Database Release Frequency: Varies
Date of Last EDR Contact: 07/23/2007
Date of Next Scheduled Update: 10/22/2007

CA Sacramento Co. ML: ML - Regulatory Compliance Master List
Source: Sacramento County Environmental Management
Telephone: 916-875-8406
Any business that has hazardous materials on site - hazardous material storage sites, underground storage tanks, waste generators.

Date of Government Version: 05/04/2007
Database Release Frequency: Quarterly
Date of Last EDR Contact: 07/31/2007
Date of Next Scheduled Update: 10/29/2007

CA SAN DIEGO CO. HMMD: Hazardous Materials Management Division Database
Source: Hazardous Materials Management Division
Telephone: 619-338-2268
The database includes: HE58 - This report contains the business name, site address, business phone number, establishment 'H' permit number, type of permit, and the business status. HE17 - In addition to providing the same information provided in the HE58 listing, HE17 provides inspection dates, violations received by the establishment, hazardous waste generated, the quantity, method of storage, treatment/disposal of waste and the hauler, and information on underground storage tanks. Unauthorized Release List - Includes a summary of environmental contamination cases in San Diego County (underground tank cases, non-tank cases, groundwater contamination, and soil contamination are included.)

Date of Government Version: 05/16/2005
Database Release Frequency: Quarterly
Date of Last EDR Contact: 07/05/2007
Date of Next Scheduled Update: 10/01/2007

CA San Bern. Co. Permit: Hazardous Material Permits
Source: San Bernardino County Fire Department Hazardous Materials Division
Telephone: 909-387-3041
This listing includes underground storage tanks, medical waste handlers/generators, hazardous materials handlers, hazardous waste generators, and waste oil generators/handlers.

Date of Government Version: 03/23/2007
Database Release Frequency: Quarterly
Date of Last EDR Contact: 06/04/2007
Date of Next Scheduled Update: 09/03/2007

CA San Mateo Co. BI: Business Inventory
Source: San Mateo County Environmental Health Services Division
Telephone: 650-363-1921
List includes Hazardous Materials Business Plan, hazardous waste generators, and underground storage tanks.

Date of Government Version: 04/30/2007
Database Release Frequency: Annually
Date of Last EDR Contact: 07/09/2007
Date of Next Scheduled Update: 10/08/2007

CA RESPONSE: State Response Sites
Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Identifies confirmed release sites where DTSC is involved in remediation, either in a lead or oversight capacity. These confirmed release sites are generally high-priority and high potential risk.

Date of Government Version: 05/29/2007
Database Release Frequency: Quarterly
Date of Last EDR Contact: 05/30/2007
Date of Next Scheduled Update: 08/27/2007

SECTION 3: DATABASES SEARCHED AND UPDATE DATES

...Continued...

CA HAZNET: Facility and Manifest Data
Source: California Environmental Protection Agency
Telephone: 916-255-1136
Facility and Manifest Data. The data is extracted from the copies of hazardous waste manifests received each year by the DTSC. The annual volume of manifests is typically 700,000 - 1,000,000 annually, representing approximately 350,000 - 500,000 shipments. Data are from the manifests submitted without correction, and therefore many contain some invalid values for data elements such as generator ID, TSD ID, waste category, and disposal method.

Date of Government Version: 12/31/2005
Database Release Frequency: Annually
Date of Last EDR Contact: 05/11/2007
Date of Next Scheduled Update: 08/06/2007

CA EMI: Emissions Inventory Data
Source: California Air Resources Board
Telephone: 916-322-2990
Toxics and criteria pollutant emissions data collected by the ARB and local air pollution agencies.

Date of Government Version: 12/31/2005
Database Release Frequency: Varies
Date of Last EDR Contact: 07/20/2007
Date of Next Scheduled Update: 10/15/2007

CA ENVIROSTOR: EnviroStor Database
Source: Department of Toxic Substances Control
Telephone: 916-323-3400
The Department of Toxic Substances Control's (DTSC's) Site Mitigation and Brownfields Reuse Program's (SMBRP's) EnviroStor database identifes sites that have known contamination or sites for which there may be reasons to investigate further. The database includes the following site types: Federal Superfund sites (National Priorities List (NPL)); State Response, including Military Facilities and State Superfund; Voluntary Cleanup; and School sites. EnviroStor provides similar information to the information that was available in CalSites, and provides additional site information, including, but not limited to, identification of formerly-contaminated properties that have been released for reuse, properties where environmental deed restrictions have been recorded to prevent inappropriate land uses, and risk characterization information that is used to assess potential impacts to public health and the environment at contaminated sites.

Date of Government Version: 05/29/2007
Database Release Frequency: Quarterly
Date of Last EDR Contact: 05/30/2007
Date of Next Scheduled Update: 08/27/2007

CA HAULERS: Registered Waste Tire Haulers Listing
Source: Integrated Waste Management Board
Telephone: 916-341-6422
A listing of registered waste tire haulers.

Date of Government Version: 06/07/2007
Database Release Frequency: Varies
Date of Last EDR Contact: 05/11/2007
Date of Next Scheduled Update: Not reported

CA SAN DIEGO CO. SAM: Environmental Case Listing
Source: San Diego County Department of Environmental Health
Telephone: 619-338-2371
The listing contains all underground tank release cases and projects pertaining to properties contaminated with hazardous substances that are actively under review by the Site Assessment and Mitigation Program.

Date of Government Version: 03/29/2007
Database Release Frequency: Varies
Date of Last EDR Contact: 07/03/2007
Date of Next Scheduled Update: 10/01/2007

POTENTIAL SUPERFUND LIABILITY

PRP: Potentially Responsible Parties
Source: EPA
Telephone: 202-564-6064
A listing of verified Potentially Responsible Parties

Date of Government Version: 03/07/2007
Database Release Frequency: Quarterly
Date of Last EDR Contact: 07/02/2007
Date of Next Scheduled Update: 10/01/2007

The EDR-City Directory
Abstract

Universal Studios
100 Universal City Plaza
Universal City, CA 91608

Inquiry Number: 1743646.6

Friday, August 25, 2006

EDR® Environmental Data Resources Inc

The Standard in Environmental Risk Management Information

440 Wheelers Farms Road
Milford, Connecticut 06461

Nationwide Customer Service

Telephone: 1-800-352-0050
Fax: 1-800-231-6802
Internet: www.edrnet.com

EDR City Directory Abstract

Environmental Data Resources, Inc.'s (EDR) City Directory Abstract is a screening report designed to assist environmental professionals in evaluating potential liability on a target property resulting from past activities. EDR's City Directory Abstract includes a search and abstract of available city directory data. For each address, the directory lists the name of the corresponding occupant at five year intervals.

Thank you for your business.
Please contact EDR at 1-800-352-0050
with any questions or comments.

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SUMMARY

- ***City Directories:***

Business directories including city, cross reference and telephone directories were reviewed, if available, at approximately five year intervals for the years spanning 1920 through 2006. (These years are not necessarily inclusive.) A summary of the information obtained is provided in the text of this report.

This report compiles information by geocoding the subject properties (that is, plotting the latitude and longitude for such subject properties and obtaining data concerning properties within 1/8th of a mile of the subject properties). There is no warranty or guarantee that geocoding will report or list all properties within the specified radius of the subject properties and any such warranty or guarantee is expressly disclaimed. Accordingly, some properties within the aforementioned radius and the information concerning those properties may not be referenced in this report.

Date EDR Searched Historical Sources: August 25, 2006

Target Property:
100 Universal City Plaza
Universal City, CA 91608

Year	***Uses***	***Source***
1920	Address Not Listed in Research Source	Los Angeles Directory Co.
1921	Address Not Listed in Research Source	Los Angeles Directory Co.
1923	Address Not Listed in Research Source	Los Angeles Directory Co.
1924	Address Not Listed in Research Source	Los Angeles Directory Co.
1925	Address Not Listed in Research Source	Los Angeles Directory Co.
1926	Address Not Listed in Research Source	Los Angeles Directory Co.
1927	Address Not Listed in Research Source	Kaasen Directory Company Publishers
1928	Address Not Listed in Research Source	Los Angeles Directory Co.
1929	Address Not Listed in Research Source	Los Angeles Directory Co.
1930	Address Not Listed in Research Source	Los Angeles Directory Co.
1931	Address Not Listed in Research Source	Los Angeles Directory Company Publishers
1932	Address Not Listed in Research Source	Los Angeles Directory Co.
1933	Address Not Listed in Research Source	Los Angeles Directory Co.
1934	Address Not Listed in Research Source	Los Angeles Directory Co.
1935	Address Not Listed in Research Source	Los Angeles Directory Co.
1936	Address Not Listed in Research Source	Los Angeles Directory Co.

Year	Uses	Source
1937	Address Not Listed in Research Source	Los Angeles Directory Co.
1938	Address Not Listed in Research Source	Los Angeles Directory Company Publishers
1939	Address Not Listed in Research Source	Los Angeles Directory Co.
1940	Address Not Listed in Research Source	Los Angeles Directory Co.
1942	Address Not Listed in Research Source	Los Angeles Directory Co.
1944	Address Not Listed in Research Source	R. L. Polk & Co.
1945	Address Not Listed in Research Source	R. L. Polk & Co.
1946	Address Not Listed in Research Source	Los Angeles Directory Co.
1947	Address Not Listed in Research Source	Pacific Directory Co.
1948	Address Not Listed in Research Source	Los Angeles Directory Co.
1949	Address Not Listed in Research Source	Los Angeles Directory Co.
1950	Address Not Listed in Research Source	Pacific Telephone
1951	Address Not Listed in Research Source	Los Angeles Directory Co Publishers
1952	Address Not Listed in Research Source	Los Angeles Directory Co.
1954	Address Not Listed in Research Source	R. L. Polk & Co.
1955	Address Not Listed in Research Source	R. L. Polk & Co.
1956	Address Not Listed in Research Source	Pacific Telephone
1957	Address Not Listed in Research Source	Pacific Telephone
1958	Address Not Listed in Research Source	Pacific Telephone
1960	Address Not Listed in Research Source	Pacific Telephone

Year	Uses	Source
1961	Address Not Listed in Research Source	Luskey Brothers & Co
1962	Address Not Listed in Research Source	Pacific Telephone
1963	Address Not Listed in Research Source	Pacific Telephone
1964	Address Not Listed in Research Source	Pacific Telephone
1965	Address Not Listed in Research Source	GTE
1966	Address Not Listed in Research Source	Pacific Telephone
1967	Address Not Listed in Research Source	R. L. Polk & Co.
1969	Address Not Listed in Research Source	Pacific Telephone
1970	Address Not Listed in Research Source	R. L. POLK & CO.
1971	Address Not Listed in Research Source	B&G Publications
1972	Address Not Listed in Research Source	R. L. Polk & Co.
1975	****UNIVERSAL CITY PLZ****	Pacific Telephone
	PROFESSOR BLOOD GOOD OLD TIME PHOTO EMPORIUM (100)	
	UNIVERSAL CITY PLAZA (100)	
1976	****UNIVERSAL CITY PLZ****	R.L. Polk & co Publishers
	HUTTON E F & COMPANY INC BRKRS OTHER OFFICES BEVERLY HILLS (100)	
	HUTTON E F & COMPANY INC BRKRS OTHER OFFICES BEVERLY HILLS (100)	
	M C A INC (100)	
	MCA RECORDS INC (100)	
	NORTH HOLLYWOOD (100)	
	SALKOW LESTER (100)	
	UNIVERSAL EDUCATION & VISUAL ARTS (100)	
	UNIVERSAL STUDIOS (100)	
	UNIVERSAL CITY (100)	
1980	Address Not Listed in Research Source	Pacific Telephone
1981	****UNIVERSAL CITY PLZ****	Pacific Telephone

Year	Uses	Source
1981	(continued)	
	AMPHITHEATRE UNIVERSAL STUDIO INFORMATION UNIVERSAL CITY (100)	
	CITY UNIVERSAL CITY (100)	
	MCA INC (100)	
	UNIVERSAL CITY PLAZA UNIVERSAL CITY (100)	
	UNIVERSAL EDUCATION & VISUAL ARTS UNIVERSAL CITY (100)	
	UNIVERSAL STUDIOS UNIVERSAL CITY (100)	
1985	****UNIVERSAL CITY PLZ****	Pacific Bell
	AMPHITHEATRE BOA OFFICE INFORMATION (100)	
	AMPHITHEATRE EXECUTIVE OFFICE (100)	
	AMPHITHEATRE UNIVERSAL STUDIO INFORMATION (100)	
	COMMISSARY FOOD & BANQUET SERVICE (100)	
	CONVENIENCE BANKING CENTER (100)	
	CREDIT UNION (100)	
	DOMESTIC (100)	
	EVENINGS WEEKENDS & HOLIDAYS CALL (100)	
	EVENINGS WEEKENDS & HOLIDAYS CALL (100)	
	FOR ALL OTHER TOUR DEPARTMENTS (100)	
	FOR DEPARTMENTS NOT LISTED BELOW (100)	
	FOR MCA COMPANIES NOT LISTED BELOW (100)	
	GROUP TOUR RESERVATIONS (100)	
	INSURANCE (100)	
	INTERNATIONAL (100)	
	LEASING INFORMATION ONLY (100)	
	MCA DATA PROCESSING (100)	
	MCA DEVELOPMENT (100)	
	MCA DISTRIBUTING CORP (100)	
	MCA FOUNDATION LTD (100)	
	MCA HOME VIDEO (100)	
	MCA INC (100)	
	MCA MUSIC (100)	
	MCA NEW VENTURES (100)	
	MCA NEW VENTURES (100)	
	MCA RECORDS INC (100)	
	MCA RECORDS INC (100)	
	MCA RECREATION SERVICES (100)	
	MCA TV ENTERPRISES (100)	
	MCA TELEVISION LIMITED (100)	
	MCA VIDEO GAMES (100)	
	MCA VIDEODISC (100)	
	PACIFIC PHOTO EXPRESS (100)	
	PERSONNEL (100)	

Year	Uses	Source
1985	(continued)	
	PROFESSOR BFOODGOOD OLD TIME PHOTO EMPORIUM (100)	
	PROFESSORS ELECTRIC SERVICE CO TUJ (100)	
	PURCHASING (100)	
	SECURITY (100)	
	SPANISH TOUR INFORMATION (100)	
	TELEVISION (100)	
	TOUR INFORMATION (100)	
	TOUR PERSONNEL (100)	
	UNIVERSAL CITY PLAZA (100)	
	UNIVERSAL CITY PSYCHIATRIC & COUNSELING CENTER (100)	
	UNIVERSAL STUDIOS CONVENIENCE BANKING CENTER (100)	
	VERSATELLER AUTOMATED TELLER MACHINE (100)	
	EMBASSY COMMUNICATIONS (100)	
1986	****UNIVERSAL CITY PLZ****	Pacific Bell
	AMPHITHEATRE UNIVERSAL STUDIO INFORMATION UNIVERSAL CITY (100)	
	HUTTON E F & COMPANY INC UNIVERSAL CITY UNIVERSAL CITY (100)	
	I R S RECORDS UNIVERSAL CITY (100)	
	MUSIFILM NORTH HOLLYWOOD (100)	
	UNIVERSAL STUDIOS UNIVERSAL CITY (100)	
	VINCENT PICTURES NH (100)	
	ZEBRA RECORDS NH (100)	
1990	****UNIVERSAL CITY PLZ****	Pacific Bell
	40-SHARE PRODUCTIONS UNIVERSAL CITY (100)	
	IRS RECORDS UNIVERSAL CITY (100)	
	MCA DEVELOPMENT COMPANY UNIVERSAL CITY (100)	
	MCA INC (100)	
	MCA NEW VENTURES UNIVERSAL CITY (100)	
	MUSIFILM UNIVERSAL CITY (100)	
	SHEARSON LEHMAN HUTTON INC (100)	
	UNIVERSAL CITY STUDIOS INC UNIVERSAL CITY (100)	
	VINCENT PICTURES UNIVERSAL CITY (100)	
	ZEBRA RECORDS UNIVERSAL CITY (100)	
1991	****UNIVERSAL CITY PLZ****	Pacific Bell
	AME N D (100)	
	AMPHITHEATRE BOX OFFICE (100)	
	AMPHITHEATRE EXECUTIVE OFFICE (100)	
	AMPHITHEATRE RECORDED CONCERT INFORMATION (100)	
	ANDERSON VIDEO (100)	
	AUDIENCES UNLIMITED (100)	
	AUDIER MATT & JILL (100)	
	BLDG 447 (100)	

Year	Uses	Source
1991 (continued)		
	CINEPLEX ODEON UNIVERSAL CITY CINEMAS (100)	
	COMMISSARY FOOD & BANQUET SERVICES (100)	
	CREDIT UNION (100)	
	FOR ALT OTHER TOUR DEPARTMENTS (100)	
	FOR DEPARTMENTS NOT LISTED BELOW (100)	
	FOR MCA COMPANIES NOT LISTED BELOW (100)	
	FRONT LINE MANAGEMENT CO INC (100)	
	FRONT PAGE (100)	
	GARRAHYS FUDGE KITCHEN (100)	
	GARRARD GLENN (100)	
	GROUP TOUR RESERVATIONS (100)	
	HOFFMAN TRAVEL SERVICE INC (100)	
	HOFFMAN V (100)	
	HOFFMAN VR NOR (100)	
	HOFFMAN VALERIE (100)	
	HOFFMAN W C (100)	
	HUMAN RESOURCES (100)	
	INSURANCE (100)	
	MCA DATA PROCESSING (100)	
	MCA DEVELOPMENT REAL ESTATE (100)	
	MCA DISTRIBUTING CORP (100)	
	MCA FOUNDATION LTD & CORP CONTRIBUTIONS (100)	
	MCA HOME VIDEO (100)	
	MCA INC (100)	
	MCA RECORDS INC (100)	
	MCA RECREATION SERVICES (100)	
	MCA TV ENTERPRISES (100)	
	MCA TELEVISION LTD INTERNATIONAL (100)	
	MCAMUSIC (100)	
	MUSIFILM (100)	
	MUSIKOFF L (100)	
	PACIFIC PHOTO EXPRESS (100)	
	PURCHASING (100)	
	RODRIGUEZ JESSE PRJECTNIST (100)	
	RODRIGUEZ JESUS (100)	
	RODRIGUEZ JESUS (100)	
	S TUDIOS IN C (100)	
	SECURITY (100)	
	SHEARSON LEHMAN BROTHERS INC (100)	
	SPANISH TOUR INFORMATION (100)	
	SPECIAL EVENTS (100)	
	TOUR INFORMATION (100)	
	TOUR PERSONNEL (100)	

Year	Uses	Source
1991	(continued)	
	TURNER CONSTRUCTION CO MCA (100)	
	TURNER D (100)	
	TURNER D (100)	
	TURNER D (100)	
	TURNER D (100)	
	TURNER. . 7844184 (100)	
	TURNERI D (100)	
	UNIVERSAL CITY CINEMAS (100)	
	UNIVERSAL CITY YELLOW CAB (100)	
	UNIVERSAL EDUCATION & VISUAL ARTS (100)	
	UNIVERSAL PAY TELEVISION (100)	
	UNIVERSAL PICTURES ADVERTISING & PUBLICITY (100)	
	VINCENT PICTURES (100)	
	WORBERS COMPENSATION (100)	
1995	****UNIVERSAL CITY PLZ****	Pacific Bell Telephone
	AME N CARSON PRODUCTIONS GROUP (100)	
	ANDERSON VIDEO (100)	
	AUDIENCES UNLIMITED (100)	
	CINEPLEX ODEON UNIVERSAL CITY CINEMAS (100)	
	CURRENT WAVE THE (100)	
	FUNHOUSE PRODUCTIONS INC (100)	
	I RAFFAELLA PRODUCTIONS INC (100)	
	MCA INC (100)	
	MCA NEW VENTURES (100)	
	MUSIFILM (100)	
	NORTH AMERICAN REINSSURANCE (100)	
	PACIFIC PHOTO EXPRESS (100)	
	PROFESSOR BLOODGOOD OLD TIME PHOTO EMPORIUM (100)	
	RAFFAELE YVONNE & DANA (100)	
	S TUDIOS IN C (100)	
	UN IVE RS AL CITY (100)	
	UNIVERSAL CITY CINEMAS (100)	
	UPTOWN ENTERTAINMENT FILM AND TV DIVISION (100)	
	VINCENT NICHOLAS A (100)	
	I VINCENT PICTURES (100)	
	40-SHARE PRODUCTIONS UNIVERSAL CITY (100)	
	AMEN-CARSON PRODUCTIONS GROUP UNIVERSAL CITY (100)	
	ANDERSON VIDEO NH (100)	
	HOFFMAN TRAVEL SERVICE INC UNIVERSAL CITY (100)	
	MCA INC UNIVERSAL CITY (100)	
	MCA NEW VENTURES UNIVERSAL CITY (100)	
	MUSIFILM UNIVERSAL CITY (100)	

Year	Uses	Source
1995	(continued)	
	UNIVERSAL CITY STUDIOS INC UNIVERSAL CITY (100)	
	UPTOWN ENTERTAINMENT FILM AND TV DIVISION UNIVERSAL CITY (100)	
	VINCENT PICTURES UNIVERSAL CITY (100)	
	ZEBRA RECORDS UNIVERSAL CITY (100)	
1996	Address Not Listed in Research Source	GTE
1999	Address Not Listed in Research Source	Haines Company
2000	Address Not Listed in Research Source	Pacific Bell Telephone
2001	Address Not Listed in Research Source	Haines & Company, Inc.
2003	Address Not Listed in Research Source	Haines & Company
2004	Address Not Listed in Research Source	Haines Company
2006	Address Not Listed in Research Source	Haines Company

Adjoining Properties

SURROUNDING

Multiple Addresses
Universal City, CA 91608

Year	Uses	Source
1920	Address Not Listed in Research Source	Los Angeles Directory Co.
1921	Address Not Listed in Research Source	Los Angeles Directory Co.
1923	Address Not Listed in Research Source	Los Angeles Directory Co.
1924	****LANKERSHIM BLVD****	Los Angeles Directory Co.
	BELL NORMAND L ENG H (3825)	
	GOLD JAS M R (3829)	
	RUNNER E L R (3838)	
	MEYER O MRS R (3845)	
	THOMAS J R R (3849)	
	LOEB JEFF J CLK H (3881)	
	WILLIS WM W R (3881)	
	WHIPPLE WILLIS H H (3907)	
	WHIPPLE JOSEPHINE BKPR H (3907)	

Year	Uses	Source
1925	Address Not Listed in Research Source	Los Angeles Directory Co.
1926	Address Not Listed in Research Source	Los Angeles Directory Co.
1927	Address Not Listed in Research Source	Kaasen Directory Company Publishers
1928	Address Not Listed in Research Source	Los Angeles Directory Co.
1929	****LANKERSHIM BLVD****	Los Angeles Directory Co.
	CUNNINGHAM WALTER A FIREMN LAFD (3845)	
1930	****LANKERSHIM BLVD****	Los Angeles Directory Co.
	BELL N L RESTR (3825)	
	NOLAN CHAS RESTR (3835)	
	INGELS R L GARAGE (3855)	
	MC LEMORE C T AUTO PNTR (3855)	
	RANKIN R D AUTO TOP MFR (3855)	
	YOUNG AL RESTR (3873)	
	UNIVERSAL HOTEL (3875)	
	WILLIS H 0 MRS (3875)	
	JACKSON L G (3881)	
	JACKSON L G CLO CLNR (3883)	
	JELINK EMII (3903)	
	SAMENFELD KATIE RESTR (3907)	
	MORITZ A W GAS STA (3929)	
1931	Address Not Listed in Research Source	Los Angeles Directory Company Publishers
1932	Address Not Listed in Research Source	Los Angeles Directory Co.
1933	Address Not Listed in Research Source	Los Angeles Directory Co.
1934	Address Not Listed in Research Source	Los Angeles Directory Co.
1935	****LANKERSHIM BLVD****	Los Angeles Directory Co.
	ECONOMY BUILDER S SUPPLY (3820)	
	MEYER OTTO STABLES (3845)	
	BLORE ERNEST R (3869)	
	UNIVERSAL APPLIANCE CO (3877)	
	LYMNAN HERBERT C R (3881)	
	UNIVERSAL CLNRS & DYERS (3883)	
	RIVERA AG R (3919)	
	BIGELOW BABE SERV STA (3929)	

Year	Uses	Source
1935	(continued)	
	HOFFMAN SUPER SERV STA (3947)	
	****LANKERSHIM****	Los Angeles Directory Co.
	UNIVERSAL HOTEL (3875)	
1936	Address Not Listed in Research Source	Los Angeles Directory Co.
1937	****LANKERSHIM BLVD****	Los Angeles Directory Co.
	JELINK EMIL WAITER (3903)	
	RIVERA ADOLFO G DEP COUNTY CLERK (3919)	
1938	Address Not Listed in Research Source	Los Angeles Directory Company Publishers
1939	Address Not Listed in Research Source	Los Angeles Directory Co.
1940	****LANKERSHIM BLVD****	Los Angeles Directory Co.
	NASAN HARRY G FURN (3820)	
	ROBERTS ROSE RESTR (3829)	
	ROGERS LEO P BARBER (3833)	
	PINE NEEDLE SKI SLOPE (3838)	
	VACANT (3839)	
	SHIVELY DONALD (3845)	
	COX VICTOR V (3849)	
	OLSON BROS WHOL EGGS (3855)	
	FINNEY OLIVER AUTO COURT (3861)	
	INGRAM MILDRED M BEAUTY SHOP (3873)	
	HAMILTON CARL F (3875)	
	UNIVERSAL HOTEL (3875)	
	ETIER DOROTHY MRS (3881)	
	MCDONALD RUTH MRS (3881)	
	ETIER DOROTHY MRS LDO CLNR (3883)	
	JELINK EMIL (O) (3903)	
	MAYES HORACE M LAWYER (3907)	
	CAMPO DE CAUENGA MEMORIAL PARK (3919)	
	RIVERA ADOLPH G (3919)	
	BATES PATK E GAS STA (3929)	
	STUDIO CAFE (3943)	
	HOFFMAN F CLAUDE GAS STA (3947)	
1942	****LANKERSHIM BLVD****	Los Angeles Directory Co.
	HAMILTON JOS Y INSPR US EUG (3875)	
1944	Address Not Listed in Research Source	R. L. Polk & Co.
1945	Address Not Listed in Research Source	R. L. Polk & Co.

Year	Uses	Source
1946	Address Not Listed in Research Source	Los Angeles Directory Co.
1947	Address Not Listed in Research Source	Pacific Directory Co.
1948	Address Not Listed in Research Source	Los Angeles Directory Co.
1949	Address Not Listed in Research Source	Los Angeles Directory Co.
1950	****LANKERSHIM BLVD****	Pacific Telephone
	DUVALL JENEAN MARIE R (3845)	
	OLSON BROS INC WHSLE EGG DLRS (3855)	
	UNIVERSAL AUTO COURT (3861)	
	FALKNER FANNY MRS R (3869)	
	MANY M J R (3871)	
	UNIVERSAL HOTEL (3875)	
	MCDONALD JOHN L R (3881)	
	GENERAL LAWN MOWER SUPPLY (3885)	
	JELINK EMIL R (3903)	
	BILL S UNIVERSAL SERV SERV STN (3929)	
	DUVALL JENEAN MARIE R (3845)	
	OLSON BROS INC WHSLE EGG DLRS (3855)	
	UNIVERSAL AUTO COURT (3861)	
	FALKNER FANNY MRS R (3869)	
	MANY M J R (3871)	
	UNIVERSAL HOTEL (3875)	
	MCDONALD JOHN L R (3881)	
	GENERAL LAWN MOWER SUPPLY (3885)	
	JELINK EMIL R (3903)	
	BILL S UNIVERSAL SERV SERV STN (3929)	
1951	Address Not Listed in Research Source	Los Angeles Directory Co Publishers
1952	Address Not Listed in Research Source	Los Angeles Directory Co.
1954	Address Not Listed in Research Source	R. L. Polk & Co.
1955	Address Not Listed in Research Source	R. L. Polk & Co.
1956	****LANKERSHIM BLVD****	Pacific Telephone
	BROWN ROBT J (3845)	
	OLSON BROS INC WHSLE EGG DLRS (3855)	
	OLSON EGG CO OLSON BROS INC (3855)	

Year	Uses	Source
1956	(continued)	
	UNIVERSAL AUTO COURT (3861)	
	PALMER JAS E (3869)	
	SYNCHROMATIC PICTURES (3873)	
	UNIVERSAL HOTEL (3875)	
	MCDONALD JOHN L (3881)	
	HILLERBY CLIFF (3883)	
	GENERAL LAWN MOWER SUPPLY (3885)	
	JELINK EMIL (3903)	
	TYLER BETTY USD FURN (3907)	
	LOS ANGELES CITY OF RECREATION & PARKS DEPT (3919)	
1957	Address Not Listed in Research Source	Pacific Telephone
1958	Address Not Listed in Research Source	Pacific Telephone
1960	Address Not Listed in Research Source	Pacific Telephone
1961	Address Not Listed in Research Source	Luskey Brothers & Co
1962	****LANKERSHIM BLVD****	Pacific Telephone
	BRYNAPROD S A (3830)	
	SONNY S GOLDEN CHALICE (3845)	
	UNIVERSAL CITY REALTY MORTGAGE & INVESTMENT CO (3845)	
	OLSON BROS INC WHSLE EGG DLRS (3855)	
	OLSON EGG CO OLSON BROS INC (3855)	
	BARNHART M H NORTH HOLLYWOOD (3861)	
	UNIVERSAL AUTO COURT (3861)	
	MAHLER DAVID (3871)	
	UNIVERSAL HOTEL (3875)	
	BRYNA PRODUCTIONS INC (3880)	
	SCHLAIFER CHAS & GO INC (3880)	
	UNIVERSAL INTERNATL STUDIOS (3880)	
	UNIVERSAL PICTURES CO INC (3880)	
	UNIVERSAL PICTURES CO INC (3880)	
	UNIVERSAL STUDIOS SEE UNIVERSAL PICTURES CO INC (3880)	
	SCHMIDT FRANK (3881)	
	BOUZAGLOU JOS (3883)	
	BOUZAGLOU MARIE (3883)	
	KARM CUSTOM DRAPERIES (3885)	
	GLICKMAN LARRY ENTERPRISES (3900)	
	HUBBELL ROBINSON PRODUCTIONS INC (3900)	
	PAC TITLE & ART STUDIO (3900)	

Year	Uses	Source
1962	(continued)	
	REVUE STUDIOS (3900)	
	LOS ANGELES CITY OF RECREATION & PARKS DEPT BRAND PARK (3919)	
	UNIVERSAL CITY REALTY MORTGAGE & INVESTMENT CO (3845)	
	OLSON BROS INC WHSLE EGG DIRS (3855)	
	BIYNAPIOD S A (3880)	
	DUBEN JOS S ATTY (3880)	
	NEALY ENTERPRISES ELECTRNCN (3939)	
1963	Address Not Listed in Research Source	Pacific Telephone
1964	Address Not Listed in Research Source	Pacific Telephone
1965	Address Not Listed in Research Source	GTE
1966	Address Not Listed in Research Source	Pacific Telephone
1967	Address Not Listed in Research Source	R. L. Polk & Co.
1969	Address Not Listed in Research Source	Pacific Telephone
1970	****LANKERSHIM BLVD****	R. L. POLK & CO.
	SAVN RENT-A-CAR HOLLYWOOD OFFICE (3885)	
	ANNETTE S (3845)	
	OLSON BROTHERS INC WHSLE EGG DLRS (3855)	
	OLSON EGG CO OLSON BROS INC (3855)	
	BUDGET RENT-A-CAR RENTAL OFFICES (3873)	
	BUDGET RENT-A-CAR RENTAL OFFICES (3873)	
	FLAT RATE RENT-A-CAR (3885)	
	SAV-ON RENT-A-CAR (3885)	
	SAVON RENT A CAR (3885)	
	UNITED STATES GOVERNMENT POST OFFICE DEPT GLENDALE (3900)	
	LOS ANGELES CITY OF RECREATION & PARKS DEPT CAMPO DE CABUENG (3919)	
	****UNIVERSAL CENTER DR****	R. L. POLK & CO.
	BACK STREET FEMLNINE ATTIRE (30)	
	CROSSLEY S FLOWERS INC (30)	
	EXECUTIVE VALET SERVICE (30)	
	GRAY LINE TOURS- (30)	
	HERTZ RENT A CAR RENT A CAR STATIONS LOS ANGELES (30)	
	IMPERIAL DRUG STORE (30)	
	LONDON SHOP THE (30)	

Year	Uses	Source
1970	(continued)	
	PAGANO S BEAUTY SALON (30)	
	SHERATON UNIVERSAL NORTH HOLLYWOOD HOTEL (30)	
	TRANS WORLD AIRLINES INC CITY TICKET OFFICES (30)	
	TWA INC CITY TICKET OFFICES (30)	
	INTERDIRECTIONS LTD (100)	
	M C A INC (100)	
	SALKOW LESTER (100)	
	UNIVERSAL STUDIOS (100)	
	UNIVERSAL STUDIOS TOUR GROUP SERVS (100)	
	****LANKERSHIM BLVD****	R. L. POLK & CO.
	ANNETTE S (3845)	
	OLSON BROTHERS INC WHSLE EGG DLRS (3855)	
	OLSON EGG CO OLSON BROS INC (3855)	
	BUDGET RENT-A-CAR RENTAL OFFICES (3873)	
	BUDGET RENT-A-CAR RENTAL OFFICES (3873)	
	FLAT RATE RENT-A-CAR (3885)	
	HEWLETT-PACKARD NEELY SALES REGION (3939)	
	HEWLETT-PACKARD NEELY SALES REGION (3939)	
	NEELY SALES REGION HEWLETT-PACKARD (3939)	
	NEELY SALES REGION HEWLETT-PACKARD (3939)	
	SANBORN DIV HEWLETT PACKARD (3939)	
1971	Address Not Listed in Research Source	B&G Publications
1972	Address Not Listed in Research Source	R. L. Polk & Co.
1975	****LANKERSHIM BLVD****	Pacific Telephone
	LEWIS STEVEN (3838)	
	FAIRVIEW EGG FARMS (3855)	
	OLSON FARMS INC WHSLE EGG DLRS (3855)	
	OLSON EGG CO OLSON FARMS INC (3855)	
	PROTEIN RESOURCES INC (3855)	
	GRANNYS SUBMARINE SANDWICHES (3873)	
	UNIVERSAL CITY OFFICE (3875)	
	UNIVERSAL CITY STN (3884)	
	NORTH HOLLYWOOD (3885)	
	NORTH HOLLYWOOD UNIVERSAL CITY (3885)	
	CAMPO DE CAHUENGA PLAYGROUND (3919)	
	****UNIVERSAL CITY PLZ****	Pacific Telephone
	SHERATON UNIVERSAL HOTEL (30)	
	UNIVERSAL CITY OFFICE (110)	
	****UNIVRSL CTY PLZ****	Pacific Telephone
	SHERAT0N UNIVERSAL H0TEL-N0RTH H0LYW00D (30)	

Year	Uses	Source
1975 (continued)		
	****UNIVERSAL CITY PLZ****	Pacific Telephone
	HERTZ RENT A CAR RENTAL OFFICES SHERATON UNIVERSAL HOTEL (30)	
	SHERATON UNIVERSAL HOTEL (30)	
	MAIN OFFICE WILSHIRE DISTRICT (30)	
1976	****LANKERSHIM BLVD****	R.L. Polk & co Publishers
	OLSON FARMS INC WHSLE EGG DLRS (3855)	
	****UNIVERSAL CITY PLZ****	R.L. Polk & co Publishers
	BACK STREET FEMININE ATTIRE (30)	
	HERTZ RENTA CAR RENTAL OFFICES (30)	
	HOOVER SECURITY SERVICES (30)	
	JETOURS USA INC LOS ANGELES (30)	
	LONDON SHOP THE (30)	
	SHERATON UNIVERSAL HOTEL NORTH HOLLYWOOD (30)	
	SHERATON UNIVERSAL (30)	
	SHERATON UNIVERSAL COUNTER (30)	
	SHERATON UNIVERSAL HOTEL (30)	
	UNIVERSAL CITY SHERATON HOTEL (30)	
	BURNS INTERNATIONAL SECURITY SERVICES INC (80)	
	DU PONT DE NEMOURS E I & CO (80)	
	DU PONT DE NEMOURS E I & CO CONTD PLASTIC PRODUCTS & RESINS (80)	
	DU PONT DE NEMOURS E I & CO CONTD PLASTIC PRODUCTS & RESINS (80)	
	IBM CORP OFFICE PRODUCTS DIVISION (80)	
	IBM CORP OFFICE PRODUCTS DIVISION (80)	
	PLASTIC PRODUCTS & RESINS DEPT (80)	
	PLASTIC PRODUCTS & RESINS DEPT POLYMER PRODUCTS DIV (80)	
	SALES OFFICE UNIVERSAL CITY (80)	
	SERVICE OFFICES UNIVERSAL CITY PLAZA (80)	
	TREASURERS DEPT REGIONAL CREDIT OFFICE (80)	
	APPLIED SYSTEMS RESOURCES (90)	
	CALIFORNIA LAND TITLE COMPANY (90)	
	CALIFORNIA WORLD FINANCIAL CORP (90)	
	DATA PROTECTION INCORPORATED (90)	
	FREEMAN BARRY H AND ASSOCIATES INS (90)	
1980	****LANKERSHIM BLVD****	Pacific Telephone
	TL S DISCO-VICTORIA STATION (3850)	
	VICTORIA STATION (3850)	
	BLACK FALCON LTD (3855)	
	LUCASFILM LTD (3855)	
	SPROCKET SYSTEMS LTD (3855)	

Year	Uses	Source
1980 (continued)		
	TURNER CONSTRUCTION (3870)	
	TURNER CONSTRUCTION CO (3870)	
	UNIVERSAL CITY EXTRA CASTING (3875)	
	UNITED STATES GOVERNMENT POSTAL SERVICE (3884)	
	HOLLYWOOD-BURBANK AIRPORT (3885)	
	SEARS RENT A CAR (3885)	
	LOS ANGELES CITY OF RECREATION & PARKS DEPT CENTRAL AREA (3919)	
	HEWLETT-PACKARD NEELY SALES REGION (3939)	
	NEELY SALES REGION HEWIETT PACKARD (3939)	
	NEELY SALES DIV HEWLETT-PACKARD NORTH HOLLYWOOD (3939)	
	****UNIVERSAL CITY PLZ****	Pacific Telephone
	HERTZ RENT A CAR RENTAL LOCATIONS SAN FERNANDO VALLEY NORTH (30)	
	SHERATON UNIVERSAL HOTEL NORTH HOLLYWOOD NORTH HOLLYWOOD (30)	
	DU PONT DE NEMOURS E I & CO FINANCE DEPT (80)	
	DU PONT DE NEMOURS E I & CO PLASTIC PRODUCTS & RESINS DEPT (80)	
	IBM CORP DATA PROCESSING DIVISION OFFICE PRODUCTS DIVISION U (80)	
	CALIFORNIA LAND TITLE COMPANY UNIVERSAL CITY (90)	
	CALIFORNIA WORLD FINANCIAL CORP UNIVERSAL CITY (90)	
	SHERATON UNIVERSAL HOTEL (30)	
	****UNIVERSAL CENTER DR****	Pacific Telephone
	SHERATON UNIVERSAL HOTEL (30)	
1981	****LANKERSHIM BLVD****	Pacific Telephone
	VICTORIA STATION RESTRNTS WEST LOS ANGELES (3850)	
	****UNIVERSAL CITY PLZ****	Pacific Telephone
	LONDON SHOP THE AIRPORT MARINA HOTEL (30)	
	SHERATON UNIVERSAL HOTEL NORTH HOLLYWOOD NH (30)	
	STREET FEMININE ATTIRE (30)	
	ASK MR FOSTER TRAVEL SERVICE (60)	
	CALIFORNIA LAND TITLE COMPANY UNIVERSAL CITY (60)	
	DU PONT DE NEMOURS E I & CO FINANCE DEPT REGIONAL CREDIT OFF (80)	
	DU PONT DE NEMOURS E I & CO POLYMER PRODUCTS DEPT (80)	
	IBM CORP OFFICE PRODUCTS DIVISION (80)	
	IBM CORP OFFICE PRODUCTS DIVISION (80)	
	SAN DIEGO FEDERAL SAVINGS & LOAN ASSOCIATION (80)	
	APPLIED SYSTEMS RESOURCES UNIVERSAL CITY (90)	
	DATA PROTECTION INCORPORATED UNVSI CTY (90)	

Year	Uses	Source
1985	****LANKERSHIM BLVD****	Pacific Bell
	OR (3850)	
	EGG CO PROPERTIES (3855)	
	EGG CO THE (3855)	
	EGGAR TIM (3855)	
	EGGEBRECHT TIM (3855)	
	FROM LOS ANGELES TELEPHONES CALL (3855)	
	FROM VAN NUYS TELEPHONES CALL (3855)	
	GERARD FILMS INC (3855)	
	GERARD GLENN D (3855)	
	GERARD J A (3855)	
	GERARD NORMAN & ASSN INC (3855)	
	HIGH FIVE PRODUCTIONS (3855)	
	HOFFMAN CHORICK PRODUCTIONS (3855)	
	IDAHO FILM BUREAU (3855)	
	J F L (3855)	
	JEFFRIES FILMS INTERNAT I (3855)	
	KAZANGIAN HOWARD (3855)	
	KLINE & FRIENDS (3855)	
	KLINE & FRIENDS (3855)	
	MAURER MICHAEL (3855)	
	MAURER MIKE & SANDY (3855)	
	MC COOK NANCY CASTING (3855)	
	NEL VANA LIMITED (3855)	
	ONIEL & JEFFRIES (3855)	
	OTIS DOROTHY DAY MANAGEMENT (3855)	
	OTIS GEO (3855)	
	STANDARD A BL (3855)	
	STANDARD CONSULT GROUP (3855)	
	STANDARD WORLDWIDE (3855)	
	TEMPLE MARSHA ANTY AT LAW (3855)	
	TIFFANY MANAGEMENT (3855)	
	W E PRODUCTIONS (3855)	
	WE PRODUCTIONS (3855)	
	WEISSMAN MURRAY & ASSOC (3855)	
	BRAVOS RICK HAIR SALON (3859)	
	RICK BRAVES HAIR SALON (3859)	
	NORTH HOLLYWOOD (3885)	
	NORTH HOLLYWOOD (3885)	
	NORTH HOLLYWOOD (3885)	
	NORTH HOLLYWOOD UNIVERSAL CITY (3885)	
	NORTHRIDGE (3885)	
	NORTHRIDGE (3885)	

Year	Uses	Source
1985 (continued)		
	NORTHRIDGE (3885)	
	NORTHRIDGE (3885)	
	****LANKERSHIM****	Pacific Bell
	CAVALIERI & KLEIER ADVG (3855)	
	****UNIVERSAL CITY PLZ****	Pacific Bell
	JETOURS US A INC (30)	
	MICHAEL GARY INC (30)	
	MICHAEL GREG (30)	
	S HE RATON UN IVE RS AL HOTE L N ORTH HOLLYW OOD (30)	
	S HE RATON W ORLDW IDE RE S E RVATION S NO CHARGE TO CALLING (30)	
	FROM BURBANK TELEPHONES CALL (60)	
	FROM GLENDALE TELEPHONES CALL (60)	
	FROM NORTH HOLLYWOOD TELEPHONES CALL (60)	
	FROM VAN NUYS TELEPHONES CALL (60)	
	CLARKE LAWRENCE R ATTY (70)	
	CRAMER ROBERT W ATTY (70)	
	FIFE PHILLIP K ALSY (70)	
	FREDERICK WILDMAN & SON LTD (70)	
	FREDERICK WM R (70)	
	FREDERICKS DAVID (70)	
	FREDERICKS DENIESE (70)	
	HABER DAVID C ATTY (70)	
	HEADQUARTERS (70)	
	HOFFMAN TRAVEL SERVICE INC (70)	
	KN APP PE TE RS ON & CLARKE LAW OFFICE S OF (70)	
	KNAPP PETERSEN & CLARKE LAW OFFICES OF (70)	
	KNAPP PHILIP E (70)	
	KNAPP RYAN C ATTY (70)	
	PETERSEN DONALD C ATTY (70)	
	PETERSEN E A (70)	
	S KIDMORE OW IN GS & ME RRILL ARCHTS & ENGNRS (70)	
	SKIDMORE RAYMOND E (70)	
	TANDEM COMPUTERS (70)	
	U S ADMINISTRATORS (70)	
	U S ADMINISTRATORS BRANCH OFFICES (70)	
	UNITED MINE WORKERS OF AMERICA CLAIMS (70)	
	UNITED MINE WORKERS OF AMERICA HEALTH AND WELFARE RETIREMENT (70)	
	WILDMAN FREDERICK WILDMAN & SON LTD (70)	
	ALDYL PIPING SYSTEMS (80)	
	CONSUMER LOAN DEPT (80)	
	E PS (80)	

Year	Uses	Source
1985 (continued)		
	ETHYLENE POLYMERS DIV (80)	
	FLUOROCARBONS DIV (80)	
	MPS (80)	
	NO CHARGE TO CALLING PARTY (80)	
	PLASTIC PRODUCTS (80)	
	SAVINGS DEPARTMENT (80)	
	UNIVERSAL CITY OFFICE (80)	
	MTV MUSIC TELEVISION SEE WARNER AMEX SATELLITE ENTERTAINMENT (90)	
	N ICKE LODE ON SEE WARNER AMEX SATELLITE ENTERTAINMENT CORP (90)	
	WARNER AMEX SATELLITE ENTERTAINMENT CORP (90)	
	WARNER ANNA (90)	
	WARNER BL (90)	
	WARNER BL (90)	
	NO CHARGE TO CALLING PARTY (110)	
	NO CHARGE TO CALLING PARTY (110)	
	UNIVERSAL CITY BRANCH (110)	
	UNIVERSAL CITY BRANCH (110)	
	****LANKERSHIM BLVD****	Pacific Bell
	VICTIRIA STATION RESTRNTS (3850)	
	HEWLETT PACKARD SALES & SUPPORT OFFICES (3939)	
	NEELY SALES DIV HEWLETT PACKARD (3939)	
	****UNIVERSAL CITY PLZ****	Pacific Bell
	HERTZ RENT A CAR RENTAL LOCATIONS (30)	
	SHERATON UNIVERSAL HOTEL-NORTH HOLLYWOOD (30)	
	CALIFORNIA WORLD FINANCIAL CORP (60)	
	CONTINENTAL LAND TITLE CO CALIF LAND TITLE CO DIV (60)	
	DU PONT DE NEMOURS E I & CO POLYMER PRODUCTS DEPT PLASTIC PR (80)	
	GREAT AMERICAN FIRST SAVINGS BANK (80)	
	****LANKERSHIM BLVD****	Pacific Bell
	HEWLETT-PACKARD SALES & SUPPORT OFFICES (3939)	
	VICTORIA STATION RESTRMTS (3850)	
	****UNIVERSAL CITY PLZ****	Pacific Bell
	HERTZ RENT A CAR (30)	
	SHERATON UNIVERSAL HOTEL-NORTH HOLLYWOOD (30)	
	GREAT AMERICAN FIRST SAVINGS BANK UNIVERSAL CITY (80)	
	MTV MUSIC TELEVISION SEE WARNER-AMEX SATELLITE ENTERTAINMENT (90)	
	NICKELODEON SEE WARNER-AMEX SATELLITE ENTERTAINMENT CORP (90)	
	WARNER-AMEX SATELLITE ENTERTAINMENT CORP (90)	

Year	Uses	Source
1985 (continued)		
	****LANKERSHIM BLVD****	Pacific Bell
	VICTORIA STATION RESTRNTS (3850)	
1986	****LANKERSHIM BLVD****	Pacific Bell
	VICTORIA STATION RESTRNTS WESTMINSTER (3850)	
	ANDERSON-MC COOK CASTING STUDO CTY (3855)	
	COMMERCIAL COUNTERFEITING CONTROL INC STUDO CTY (3855)	
	JEFFRIES FILMS INTERNATL STUDO CTY (3855)	
	PRODUCTION TRAVEL & TOURS STUDO CTY (3855)	
	BUDGET RENT-A-CAR (3885)	
	****UNIVERSAL CITY PLZ****	Pacific Bell
	ANDERSON JOHN M ATTY WIEDNER SWANSON ANDERSON & HASSENBERG (10)	
	ARBOR P DANICE ATTY WIEDNER SWANSON ANDERSON & HASSENBERG (10)	
	BELLAND STANTON P MONTELEONE & MC CRORY ATTYS NH (10)	
	DRON DIANA M MONTELEONE & MCCRORY ATTYS NH (10)	
	DUFFY PATRICK J ATTY NH (10)	
	GLOVSKY CAROLE ATTY WIEDNER SWANSON ANDERSON & HASSENBERG (10)	
	HASSENBERG BARRY ATTY WIEDNER SWANSON ANDERSON & HASSENBERG (10)	
	INGALSBE WILLIAM J MONTELEONE & MC CRORY ATTYS NH (10)	
	LAFFAN WILLIAM ATTY WIEDNER SWANSON ANDERSON & HASSENBERG (10)	
	LAMBECK DEBRA T MONTELEONE & MCCRORY ATTYS NH (10)	
	MURPHY TOM ATTY WIEDNER SWANSON ANDERSON & HASSENBERG NH (10)	
	NORTH AMERICAN REINSURANCE CORP NH (10)	
	PAUL CHAS ATTY WIEDNER SWANSON ANDERSON & HASSENBERG NH (10)	
	POOL SHERRY ATTY WIEDNER SWANSON ANDERSON & HASSENBERG NH (10)	
	PUTNAM PHILIP C MONTELEONE & MCCRORY ATTYS NH (10)	
	RICHARDSON ANTON ATTY WIEDNER SWANSON ANDERSON & HASSENBERG (10)	
	ROWEN DON ATTY WIEDNER SWANSON ANDERSON & HASSENBERG NH (10)	
	STEWART MICHAEL ATTY WIEDNER SWANSON ANDERSON & HASSENBERG (10)	
	SWANSON JOEL ATTY WIEDNER SWANSON ANDERSON & HASSENBERG N (10)	
	TADY BRANDON ATTY WIEDNER SWANSON ANDERSON & HASSENBERG N (10)	

Year	Uses	Source
1986	(continued)	
	TENHAGEN BARBARA ATTY WIEDNER SWANSON ANDERSON & HASSENBERG (10)	
	TEXACO INC NH (10)	
	TEXACO INC NH (10)	
	WIEDNER BURK ATTY WIEDNER SWANSON ANDERSON & HASSENBERG N (10)	
	WIEDNER SWANSON ANDERSON & HASSENBERG LAW OFFICES OF ATTYS (10)	
	WILLIAMS SIGRID ATTY WIEDNER SWANSON ANDERSON & HASSENBERG (10)	
	YAFFE DAVID P MONTELEONE & MC CRORY NH (10)	
	SHERATON UNIVERSAL HOTEL-NORTH HOLLYWOOD NH (30)	
	CALIFORNIA LAND TITLE CO-A DIV OF CONTINENTAL LAND TITLE CO (60)	
	CONTINENTAL LAND TITLE CO UNIVERSAL CITY (60)	
	CLARKE LAWRENCE R ATTY NH (70)	
	CRAMER ROBERT W ATTY NH (70)	
	FIFE PHILLIP K ATTY NH (70)	
	HOFFMAN TRAVEL SERVICE INC NH (70)	
	KNAPP PETERSEN & CLARKE LAW OFFICES OF NH (70)	
	KNAPP RYAN C ATTY NH (70)	
	PETERSEN DONALD C ATTY NH (70)	
	DATA PROTECTION INCORPORATED UNVSL CTY (90)	
	NICKELODEON WARNER AMEX SATELITE ENTERTAINMENT CORP NH (90)	
	UNICITY MUSIC NH (90)	
	WARNER-AMEX SATELLITE ENTERTAINMENT CORP NH (90)	
1990	****LANKERSHIM BLVD****	Pacific Bell
	VICTORIA STATION RESTRNTS TORRANCE (3850)	
	ANDERSON MCCOOK WHITE CASTING INC STUDO CTY (3855)	
	COMMERCIAL COUNTERFEITING CONTROL INC STUDO CTY (3855)	
	COPYRIGHT MANAGEMENT INC STUDO CTY (3855)	
	DUDE S GOLDENTOUCH MUSIC ASCAP STUDO CTY (3855)	
	HOLLAND PREUIT STUDO CTY (3855)	
	HOLLYWOOD WALK OF FAME FAN CLUB STUDO CTY (3855)	
	PREUIT HOLLAND STUDO CTY (3855)	
	PRODUCTION TRAVEL & TOURS STUDO CTY (3855)	
	BUDGET RENT-A-CAR RENT-A-CAR STATIONS NORTH HOLLYWOOD-UNIVER (3885)	
	****UNIVERSAL CITY PLZ****	Pacific Bell
	ABLON PAUL S ATTY FIFE SMITH ABLON NH (10)	
	AGAJANIAN MC FALL & HEWITT ATTORNEYS AT LAW NH (10)	
	ARBOR P DANICE ATTY WIEDNER SWANSON & PAUL NH (10)	

Year	Uses	Source
1990 (continued)		
	ASSOCIATED AVIATION UNDERWRITERS UNIVERSAL CITY (10)	
	BALLARD KENNETH R ATTY BALLARD ROSENBERG & GOLPER NH (10)	
	BALLARD ROSENBERG & GOLPER NH (10)	
	CHILDERS & DICKINSON ATTYS NH (10)	
	COSSI LIDIA A ATTY BALLARD ROSENBERG A GOLPER NH (10)	
	CRAIN KATHLEEN M ATTY BALLARDROSENBERG & GOLPER NH (10)	
	DANIELS HERMINE ATTY WIEDNER SWANSON PAUL NH (10)	
	DRON DIANA M ATTY MONTELEONE & MCCRORY NH (10)	
	DUFFY PATRICK J ATTY MONTELEONE & MCCRORY NH (10)	
	FIFE PHILLIP K ATTY FIFE SMITH ABLON NH (10)	
	FIFE SMITH ABLON NH (10)	
	FISCHER ROBYN L NH (10)	
	FISHER SCOTT D NH (10)	
	GOLPER JOHN B ATTY BALLARD ROSENBERG & GOLPER NH (10)	
	HALE G ROBERT NH (10)	
	HAUBRICH KAREN K ATTY BALLARD ROSENBERG & GOLPER NH (10)	
	ICF TECHNOLOGY NH (10)	
	INGALSBE WILLIAM J ATTY MONTELEONE & MCCRORY NH (10)	
	KING JENNIFER ATTY NH (10)	
	KITAGAWA DAWN T ATTY BALLARD ROSENBERG & GOLPER NH (10)	
	LAFFAN WILLIAM ATTY WIEDNER SWANSON & PAUL NH (10)	
	LAMBECK DEBRA T ATTY MONTELEONE & MCCRORY NH (10)	
	LUEKE STEPHEN R ATTY BALLARD ROSENBERG & GOLPER NH (10)	
	MACK EASON & BERNSTEIN NH (10)	
	MANNING SELVAGE & LEE NH (10)	
	MCCRORY DARRELL P ATTY MONTELEONE & MCCRORY NH (10)	
	MCCUTCHEN JOHN C NH (10)	
	MCDERMOTT THOMAS J ATTY WIEDNER SWANSON & PAUL NH (10)	
	MCGUIRE THOMAS P ATTY MONTELEONE & MCCRORY NH (10)	
	MILLER JOSEPH A ATTY MONTELEONE & MCCRORY NH (10)	
	MINCHELLA MICHAEL F ATTY MONTELEONE & MCCRORY NH (10)	
	MONTELEONE & MC CRORY ATTY NH (10)	
	MOORE ROBT ATTY WIEDNER SWANSON & PAUL NH (10)	
	MTV NH (10)	

Year	Uses	Source
1990 (continued)		
	MURPHY TOM ATTY WIEDNER SWANSON & PAUL NH (10)	
	PAN LEONIE ATTY WIEDNER SWANSON & PAUL NH (10)	
	PAUL CHAS ATTY WIEDNER SWANSON & PAUL NH (10)	
	POOL SHERRY ATTY WIEDNER SWANSON & PAUL NH (10)	
	PRUDENTIAL REINSURANCE NH (10)	
	PUTNAM PHILIP C ATTY MONTELEONE & MC CRORY NH (10)	
	RICHARDSON ANTON ATAY WIEDNER SWANSON & PAUL NH (10)	
	ROSENBERG RICHARD S ATTY BALLARD ROSENBERG & GOLPER NH (10)	
	SANTANA ARTURO ATTY NH (10)	
	SHIELD DONALD J NH (10)	
	SHIELDS DONALD J ATTY MONTELEONE & MCCRORY NH (10)	
	SIMPSON DAVID B ATTY BALLARD ROSENBERG & GOLPER NH (10)	
	SMITH MARC ATTY FIFE SMITH ABLON NH (10)	
	SMITH ROBERT ATTY NH (10)	
	STREIMER LAURA ATTY WIEDNER SWANSON & PAUL NH (10)	
	SWANSON JOEL ATTY WIEDNER SWANSON & PAUL NH (10)	
	TEXACO INC NH (10)	
	TISHMAN WEST MANAGEMENT CORP NH (10)	
	WIEDNER BURK ATTY WIEDNER SWANSON PAUL NH (10)	
	WIEDNER SWANSON & PAUL LAW OFFICES OF ATTYS NH (10)	
	WILLIAMS SIGRID ATTY WIEDNER SWANSON & PAUL & 509 7200 NH (10)	
	WOLF MARSHA L ATTY BALLARD ROSENBERG & GOLPER NH (10)	
	WOLFLICK GREGORY D ATTY BALLARD ROSENBERG & GOLPER NH (10)	
	WOODRUFF CYNTHIA A ATTY BALLARD ROSENBERG & GOLPER NH (10)	
	YAFFE DAVID P ATTY MONTELEONE & MCCRORY NH (10)	
	YOKOMIZA DOUGLAS NH (10)	
	YOKOMIZO DOUGLAS ATTY MONTELEONE & MC CRORY NH (10)	
	JETOURS U S A INC NH (30)	
	CONTINENTAL LAND TITLE CO UNIVERSAL CITY (60)	
	CLARKE LAWRENCE R ATTY NH (70)	
	KNAPP PETERSEN & CLARKE LAW OFFICES OF NH (70)	
	KNAPP RYAN C ATTY NH (70)	
	LEVINE JOEL A ESQ NH (70)	
	MAIDSTONE WINE & SPIRITS NH (70)	
	MCA HOME ENTERTAINMENT UNIVERSNAL CITY (70)	
	MCA RECORDS INC UNIVERSAL CITY (70)	

Year	Uses	Source
1990	(continued)	
	MERCHANDISING CORPORATION OF AMERICA UNIVERSAL CITY (70)	
	GREAT AMERICAN BANK SSB (80)	
	GREAT AMERICAN BANK SSB CUSTOMER SERVICES (80)	
	DATA PROTECTION INCORPORATED UNVSL CTY (90)	
	WET DESIGN NH (90)	
1991	****LANKERSHIM BLVD****	Pacific Bell
	RAY WILSON CO MCA (3844)	
	OR (3850)	
	TLS DISCO VICTORIA STATION (3850)	
	VICTORIA STATIONS (3850)	
	ALBRECHT PRODUCTIONS INC (3855)	
	ALBRECHT R (3855)	
	ANDERSON & MORRIS LAW OFC (3855)	
	ANDERSON N (3855)	
	ANDERSON N (3855)	
	ANDERSON N (3855)	
	ANDERSON N A (3855)	
	BAKER & BAKER (3855)	
	BAKER BARBARA SYLM (3855)	
	CAPLAN GARY MARKTNG CONSLTUTS (3855)	
	CHARTED COURSE PRODUCTIONS (3855)	
	CHIP LIGHTMAN MANAGEMENT (3855)	
	COOKE FRIEDMAN PRODUCTIONS (3855)	
	EGG CO PROPERTIES (3855)	
	EGG CO THE (3855)	
	ENCORE TALENT AGENCY (3855)	
	EXIT PRODUCTIONS (3855)	
	FOXGREENE (3855)	
	FROM LOS ANGELES TELEPHONES CALL (3855)	
	FROM LOS ANGELES TELEPHONES CALL (3855)	
	FROM LOS ANGELES TELEPHONES CALL (3855)	
	FROM SANTA CLARITA TELEPHONES CALL (3855)	
	FROM VAN NUYS TELEPHONES CALL (3855)	
	GORILLA GROUP THE (3855)	
	GUEDE FILMS (3855)	
	HAL RAPEL & ASSOCIATES (3855)	
	HOLLAND PREUIT (3855)	
	ISACSON PICTURES INC (3855)	
	ISACSON R (3855)	
	JONES ENTERTAINMENT GROUP (3855)	
	KAZANGIAN HOWARD (3855)	
	KAZANJIAN KEN (3855)	

Year	Uses	Source
1991 (continued)		
	KAZANJIAN KRIKOR OL OW DRYDEN GIN (3855)	
	NEOLUX (3855)	
	ONELL JAMES & ASSOCIATES (3855)	
	PHONE PROGRAMS INC (3855)	
	PIACCI (3855)	
	PREUIT HOLLAND (3855)	
	PREUSKER G (3855)	
	PREUSS AMOS (3855)	
	RMH INTEMATL (3855)	
	RMH PRODUCTIONS & BROADCASTING (3855)	
	RMH PRODUCTIONS & BROADCASTING CORP (3855)	
	REEM LEE ENTRTNMT SIS PROMOTN (3855)	
	RICHARDS PACKAGING (3855)	
	ROGERS STEPHANIE & ASSOCIATES (3855)	
	ROXY PRODUCTIONS (3855)	
	TELEART (3855)	
	TRICOR ENTERTAINMENT (3855)	
	WATER FRESH (3855)	
	WATER HEATERS & MORE (3855)	
	WATER HEATERS ONLY INC (3855)	
	WATER HEATERS ONLY INC (3855)	
	WATER HEATERS ONLY INC PAC (3855)	
	WEISSMAN ANGELLOTTI (3855)	
	WINTERS WEST PICTURES (3855)	
	I E S M MARKETING (3855)	
	I E S M MEDICAL BILLING CONSULTANTS SYLM (3855)	
	CHELSEA STUDIOS (3859)	
	DON GUY & ASSOCIATES (3859)	
	DON HOAKLEY COSEWRCONTR (3859)	
	GUY DON & ASSOCIATES (3859)	
	KELLY CHIR LS WSTLK VLG (3859)	
	KELLY CSTTING (3859)	
	TYLER SUSAN CASTING (3859)	
	NORTH HOLLYWOOD (3885)	
	NORTH HOLLYWOOD (3885)	
	NORTH HOLLYWOOD UNIVERSAL CITY (3885)	
	NORTHRIDGE (3885)	
	NORTHRIDGE (3885)	
	NORTHRIDGE (3885)	
	****UNIVERSAL CITY PLZ****	Pacific Bell
	ABLON PAUL S ATTY FIFE SMITH AMEO (10)	
	ADAMS DONALD (10)	
	ADAMS DONALD ATTY (10)	

Year	Uses	Source
1991 (continued)		
	AGAJANIAN &8 ME FALL ATTORNEYS AT LAW (10)	
	AGAJANIAN CARY J C ATTORNEY AT LAW (10)	
	AGAJANIAN SAM (10)	
	AMERICAN NATI GENI AGCY (10)	
	AMERICAN NATIONAL INSURANCE COMPANY COMBINATION AGENCIES LIF (10)	
	AON ENTERTAINMENT INS SERVICES LTD (10)	
	ARBOR P DANICE ATTY WIEDNER SWANSON & PAUL (10)	
	ARBOUR B .7160910 (10)	
	ASSOCIATED AVIATION UNDERWRITERS (10)	
	ASSOCIATED BOX COMPANY GIN (10)	
	AVERY CO THE R EST SIS (10)	
	BALLARD KENNETH R ATTY BALLARD ROSENBERG & GOLPER (10)	
	BALLARD ROSENBERG & GOLPER (10)	
	BALLARD S (10)	
	BALLARD S (10)	
	BELLAND STANTON P ATTY MONTELEONE & MC CRORY (10)	
	BLYE EINSTEIN PRODUCTIONS (10)	
	BUSINESS SALES & INFOONATION (10)	
	CAL MART TRAVEL SERVICE (10)	
	CAMERON CLARK H (10)	
	CHILDERS & DICKINSON ATTYS (10)	
	CHILDERS WALTER K ATTY (10)	
	CINE SOURCE (10)	
	CLINCO PETER ATTP (10)	
	CONSERVCO (10)	
	CONSERVCO (10)	
	CONSIDINE DENNIS (10)	
	CONTINENTAL LAND TITLE COMPANY CORP OFFICES (10)	
	COSSI LIDIA A ATTY BALLARD ROSENBERG & GOLPER (10)	
	DAFFY PATRICK J ATTY MONTELEONE & MC CRORY (10)	
	DANIELS HERMINE ATTY WIEDNER SWANSON & PAUL (10)	
	DICKINSON DOUGLAS ATTY (10)	
	DOUGLAS MICHAEL TELEVISION INC (10)	
	DYE JERI MONTELEONE & MC CMRY ATTY (10)	
	DYE JIM & JUDY (10)	
	DYE JOHN .9970541 (10)	
	DYE L PCTY (10)	
	DYE ML (10)	
	ELLIOTT JACK W MONTELEONE & MC CRORY ATTY (10)	
	ELLIOTT JANI (10)	
	FAMILY LAW MEDIATION GROUP (10)	
	FIFE PHILLIP K ATTY FIFE SMITH ABLON (10)	

Year	Uses	Source
1991 (continued)		
	FIFE SMITH ABLON (10)	
	FISCHER ROBYN L MONTELEONE & MC CRORY (10)	
	FISCHER ROD (10)	
	FROM BEVERIY HILLS TELEPHONES CALL (10)	
	FROM LOS ANGEBES TELESEPHONES CA (10)	
	FROM LOS ANGELES TELEPHONES CALL (10)	
	FROM LOS ANGELES TELEPHONES CALL (10)	
	GIBSON KENNETH ATTY (10)	
	GIBSON LEANN (10)	
	GORLEICK PETER ATTY (10)	
	GROVEMAN & YOUNG ATTY (10)	
	HALE G ROBERT MONTEIEONE & MC CRORY ATTY (10)	
	HALE GARY SEPULVEDA (10)	
	HAMILTON RABINOVITZ & ALSCHULIER : : (10)	
	HAMRICK RAYMOND A III A LAW CORP (10)	
	HAMRICK V V (10)	
	HARTFORD STEAM BOILER INSPECTION & INSURANCE CO (10)	
	HAUBRICH KAREN K ATTY BATARD ROSENBERG & GULPER (10)	
	HEADQUARTERS (10)	
	HR & A (10)	
	ICF TECHNOLOGY (10)	
	ICG YELLOW PAGES INC (10)	
	INGALSBE W ILIAM J ATTY MONTELEONE & MC CRORY (10)	
	JACKSON & ARSHAGOUNI CPA (10)	
	JACKSON B (10)	
	JACKSON B (10)	
	JACKSON B (10)	
	JACKSON B (10)	
	JACKSON B (10)	
	JACKSON B (10)	
	JACKSON B PCTY (10)	
	KEMPER JAMES ATTY (10)	
	KING JENNIFER J ATTORNEY AT LAW (10)	
	KING JENNIFER ATTY (10)	
	KING JESSE JAMES & THEA TAHIRIH (10)	
	KING JIM NVWNR (10)	
	KITAGAWA DAWN T ATTY BALLARD ROSENBERG & GOLPER (10)	
	KITAGAWA KEVIN (10)	
	KITAGUCHI EIKO (10)	
	KLEIN ED ATTY (10)	
	KLEIN EDMUND : (10)	
	KNOPFLER GEORGE ATTY (10)	

Year	Uses	Source
1991 (continued)		
	KNOPOF K & R (10)	
	KNOPOFF GENE (10)	
	KNOPOFF LEON (10)	
	KNOPOFF MILTON (10)	
	LAND TITLE INS COMPANY (10)	
	LANS DOUGLAS ATTY (10)	
	LAWYERS TITLE INS CORP PACIFIC STATES OFFICE (10)	
	LICHT P (10)	
	LINDAS (10)	
	LOS ANGELES GROUP SALES & CLAIMS (10)	
	LUEKE STEPHEN R ATTY BALLARD ROSENBERG & GOLPER (10)	
	MTV NETWORKS (10)	
	MAC LAUGHLIN WM A A PROFESSIONAL CORP (10)	
	MACK & BERNSTEIN ATTY (10)	
	MACK EASON & BERNSTEIN (10)	
	MANNING SELVAGE & LEE (10)	
	MARITA MOTIVATION (10)	
	MC CRAW DOUGLAS ATTY (10)	
	MC CRAW E SEPULVEDA (10)	
	MC CRAW JEANN KELLY (10)	
	MC CRAY HE (10)	
	MC CRAY HK (10)	
	MC CRORY DARRELL P ATTY MONTELEONE & MC CRORY (10)	
	MC CRORY GARY (10)	
	MC CUTCHEN JOHN C MONTELEONE & MC CRORY ATTY (10)	
	MC CUTCHEON C (10)	
	MC DERMOTT THOMAS J ATTY WIEDNER SWANSON & PAUL (10)	
	MC DERMOTT TOM (10)	
	MC DERMOTT V (10)	
	MC DERMOTT VIRGINA (10)	
	ME DERMOTT V&E (10)	
	MENTE RONALD A ATTY (10)	
	MENTEER DAVID (10)	
	MIKOS THOMAS J (10)	
	MILLER MASON DICKENSON (10)	
	MILLER MATT (10)	
	MILLER ROBYN L (10)	
	MILLERIOSEPH A ASTY MONTELEONE& MC CRORY (10)	
	MINCHELLA MICHAEL F ATTY MONTELEONE & MC CRORY (10)	
	MINCHEW E (10)	
	MONTELEONE & MC CRORY ATTY (10)	
	MONTELEONE MICHAEL (10)	

Year	Uses	Source
1991 (continued)		
	MONTELEONE MICHAEL (10)	
	MONTELEONE MICHAEL & STEPHAN (10)	
	MONTELEONE MICHAEL F (10)	
	MOORE ROBT ATP WIEDNER SWANSON & PAUL (10)	
	MURPHY TOM ATTY WIEDNER SWANSON & PAUL (10)	
	MUTUAL OF OMAHA (10)	
	MUTUAL OF OMAHA LIFE INSURANCE CO GROUP INSURANCE (10)	
	MUTUAL PROTECTION TRUST NO CHARGE TO CALLING PARTY (10)	
	NEGELE JAMES R ATTY (10)	
	NEGELE KNOPFLER PIERSON & ROBERTSON (10)	
	NIPPON FIRE & MARINE INS CO (10)	
	NIPPON INFORMATION SERVICES (10)	
	NO CHARGE TO CALLING PARTY (10)	
	NO CHARGE TO CALLING PARTY (10)	
	NORTH AMERICAN REINSURANCE CORP (10)	
	ORMOND JANET ARTY (10)	
	OTC (10)	
	OVERZYL ROBERT J ATTY (10)	
	OVESEPYAN TEVAN (10)	
	OVESPYAN GRANT LOST RAYMOND AV GIN (10)	
	OWENSBY LOIS ATTY (10)	
	PAN LEONIE ATTY WIEDNER SWANSON & PAUL (10)	
	PAN PACIFIC DISTRIBUTORS S FER (10)	
	PAPPAS CHRISTOPHER P (10)	
	PAUL CHAS ATTY WIEDNER SWANSON & PAUL (10)	
	POOL SHERRY ATTY WIEDNER SWANSON & PAUL (10)	
	POPCORN ENTERTAINMENT (10)	
	PRELERRED PROVIDER ORGANIZATION (10)	
	PROFESSIONAL LOCK SERVICE (10)	
	PROFESSIONAL LOSS CONTROL (10)	
	PROTECTIVE LIFE INSURANCE COMPANY (10)	
	PRUDENTIAL REINSURANCE (10)	
	PUTNAM PHILIP C ATTY MONTELEONE & MC CRORY (10)	
	REINKE BRENT A (10)	
	RESIDENTIAL FUNDING CORP (10)	
	RESIDENTIAL RENOVATIONS (10)	
	RESIDENTIAL RENT A BIN (10)	
	RESIDENTIAL SERVICES INC (10)	
	RESIDOR S (10)	
	RICE ROBERT & MICHAEL W HIS (10)	
	RICE ROBERT J (10)	
	RICHARDSON ANTON ATTY WIEDNER SWANSON & PAUL (10)	

Year	Uses	Source
1991 (continued)		
	RICHARDSON CAROLYN ATTY (10)	
	RICHARDSON CARROLL (10)	
	RIGHT NOW MESSENGER (10)	
	RIGHT O WAY INC (10)	
	RIMAR PRODUCTIONS (10)	
	RIMAS S TUJ (10)	
	ROBERTSON ALEXANDER ATTY (10)	
	ROLIMS EDWINA L VW TER (10)	
	ROLLINS BURDICK HUNTER OF SOUTHERN CALIFORNIA INC (10)	
	ROLLINS CM (10)	
	ROLLINS CHRISTY (10)	
	ROLLINS DR (10)	
	ROLLINS DAN (10)	
	ROLLINS EDWINA (10)	
	ROSENBERG RICHARD S ATTY BALLARD ROSENBERG & GSLPER (10)	
	ROSENBERG THOMAS D (10)	
	ROYMAN DAVID C (10)	
	SATALINO FRANK S (10)	
	SATALOFF G & C (10)	
	SATAMALEE SUVIMOL (10)	
	SCOTT RICHARD F (10)	
	SCOTT RICHARD G (10)	
	SCOTTI RICHARD F (10)	
	SCOTTIES ROOF AND REPAIR SUN (10)	
	SEGALI W (10)	
	SEGALL STEVEN ATTY (10)	
	SEGALL STUART (10)	
	SERGIOS CATERING SERVICE (10)	
	SHIELDS DONALD J ATTY MONTEIEONE & MC CRSRY (10)	
	SHIELDS E (10)	
	SHIELDS E G (10)	
	SHOWTIME NETWORKS INC (10)	
	SHOYKHET I (10)	
	SHPA I MURRAY A (10)	
	SHPALL ALAN (10)	
	SIMPSON DAVID BL & DIANE L (10)	
	SIMPSON DAVID BL ATTY BALLARD ROSENBERG & GOLPER (10)	
	SMITH MARC & NAN ROCHELLE (10)	
	SMITH MARC & NAN ROCHELLE (10)	
	SMITH MARC ATTY FIFE SMITH ABLON (10)	
	SOREMA NORTH AMERICA REINSURANCE (10)	

Year	Uses	Source
1991 (continued)		
	SORENA JOSEPH (10)	
	SORENSEN AJ MSN HIS (10)	
	SORENSEN AM (10)	
	SPRINGS INDUSTRIES INC (10)	
	STREIMER LAURA ATLY WIEDNER SWANSON & PAUL (10)	
	STREIT ARIC A VAN NUYS (10)	
	STREIT F PCTY (10)	
	SUITE 2000 (10)	
	SWANSON JOEL ATTY WIEDNER SWANSON & PAUL (10)	
	TEXACOLNC (10)	
	TISHMAN WEST MANAGEMENT CORP (10)	
	UNIVERSAL CITY (10)	
	UNIVERSAL WHOLESALE (10)	
	VIACOM ENTERPRISES (10)	
	VIACOM INTERNATIONAL (10)	
	VOKOMIZO DOUGLAS ATTY MONTELEONE & MC CRORY (10)	
	WASSERMAN KENNETH M A PROFESSIONAL CORP (10)	
	WASSERMAN KENNETH MATTY (10)	
	WASSERMAN L (10)	
	WASSERMAN LP (10)	
	WICK C Z (10)	
	WIEDNER BURK ATTY WIEDNER SWANSON & PAUL (10)	
	WIEDNER SWANSON & PAUL LAW OFFICES OF ATTYS (10)	
	WIEDOEFT H NOR (10)	
	WILLIAMS SIGRID ATTY WIEDNER SWANSON & PAUL (10)	
	WOLFE MICHAEL L MONTELEONE &MC CRORY ATTY (10)	
	WOLFF WILLIAM ATTY (10)	
	WOLFFE CALVIN (10)	
	WOLFFE GREGORY (10)	
	WOLFFE R (10)	
	WOODRUFF CYNTHIA A ATTY BALLARD ROSENBERG & GOLPER (10)	
	WOODRUFF D (10)	
	YOUNG STEVEN (10)	
	YOUNG STEVEN ATTY (10)	
	GOLPER JOHN BL ATOP BALLARD ROSENBERG & GOLPER (18)	
	LAFFAN WILLIAM ATTY WIEDNER SWANSON & PAUL (18)	
	MC GUIRE THOMAS P ATTY MONTELEONE & MC CRORY (18)	
	SMITH ROBERT ATTY (18)	
	JETOURS US A INC (30)	
	MICHAEL GARY INC (30)	
	MCA HOME ENTERTAINMENT (70)	
	MCA RECORDS INC (70)	

Year	Uses	Source
1991 (continued)		
	MERCHAIT FARIDA (70)	
	MERCHANDISING CORPORATION OF AMERICA (70)	
	MERCHANT E M (70)	
	MERCHANT HAROLD & ADELINE S FER (70)	
	MERCHANT J (70)	
	MERCHANT KENNETH (70)	
	NARADA PRODUCTIONS (70)	
	UNIVERSAL CITY (80)	
	UNIVERSAL CITY (80)	
	UNIVERSAL CITY (80)	
	UNICITY MUSIC (90)	
	WET DESIGN (90)	
	WET ENTERPRISES INC (90)	
	RAFFAELLA PRODUCTIONS INC (108)	
	RAFFAELLI CONSTRUCTION CO (108)	
	EXISTING ACCOUNT INFORMATION EXCEPT LOANS (110)	
	NEW ACCOUNT INFORMATINN (110)	
	UNIVERSAL CITY BRANCH (110)	
	LOAN OFFICE (80)	
	UNIVERSAL CITY (80)	
1995	****LANKERSHIM BLVD****	Pacific Bell Telephone
	RAY WILSON CO MCA (3844)	
	CMI (3855)	
	CAPLAN GARY MARKTNG CONSLTNTS (3855)	
	CINEMOTION (3855)	
	DANDELION US A (3855)	
	DON ORTIZS FILM DESIGN (3855)	
	DUDES GOLDENTOUCH MUSIC (3855)	
	EGG CO PROPERTIES (3855)	
	HEEN ENTERPRISES INC (3855)	
	HOLLAND PREUIT (3855)	
	INTREPLDUS (3855)	
	JONES ENTERTAINMENT GROUP (3855)	
	L LEADING EDGE PRODUCTIONS (3855)	
	LEGENDSONG MUSIC (3855)	
	NATURE ENCOUNTERS (3855)	
	ONEIL JAMES & ASSOCIATES (3855)	
	OR (3855)	
	PRODUCTION TRAVE L & TOURS (3855)	
	REVENGE PICTURES INC (3855)	
	TVA INTERNATIONAL (3855)	
	TRICOR ENTERTAINMENT (3855)	
	VIDEO AGENCY THE (3855)	

Year	Uses	Source
1995 (continued)		
	ALLEGRO FILMS (3859)	
	I D PRODUCTION SERVICES (3859)	
	TYLER SUSAN CASTING (3859)	
	GARTNER ALEX (3900)	
	STORYLINE PRODUCTIONS (3900)	
	****UNIVERSAL CITY****	Pacific Bell Telephone
	YELL AW CAB (24)	
	YELLOW CAB (24)	
	YELLOW CAB (24)	
	YELLOW CAB (24)	
	****UNIVERSAL CITY WALK****	Pacific Bell Telephone
	MCA TV ENTERPRISES (100)	
	MCA TV ENTERPRISES (100)	
	****UNIVERSAL CITY PLZ****	Pacific Bell Telephone
	ACCLAIM VIDEO (10)	
	AGAJANIAN CARY J C ATTORNEY AT LAW (10)	
	AGAJANIAN MC FALL & TOMLINSON ATTORNEYS AT LAW (10)	
	AGAJANIAN MC FALL & TOMLINSON ATTORNEYS AT LAW (10)	
	ALLDERDICE LINDA A ATTY BALLARD ROSENBERG & GOLPER (10)	
	ALLEN JOHN ALHY WIEDNER SWANSON & PAUL (10)	
	AMATO JAMES ATTY WIEDNER SWANSON & PAUL (10)	
	AMERICAN NATI GENI AGCY (10)	
	AMERIPIX (10)	
	ANDREW MAISNER PRODUCTIONS (10)	
	AON ENTERTAINMENT LTD (10)	
	ASSOCIATE COUNSELORS OF ENCINO (10)	
	BALLARD ROS E N BE RG & GOLPE R ATTYS (10)	
	BALLARD KENNETH R ATTY BALLARD ROSENBERG & GOLPER (10)	
	BELLAND STANTON P ATTY MONTELEONE & MCCRORY (10)	
	BERLIN KEITH ATTY WIEDNER SWANSON & PAUL (10)	
	BIYE EINSTEIN PRODUCTIONS (10)	
	BLAKE ROBERT ATTY WIEDNER SWANSON & PAUL (10)	
	BREYER JANET H ATTY BALLARD ROSENBERG & GOLPER (10)	
	BRODY ROBERT ATTY WIEDNER SWANSON & PAUL (10)	
	BURCH JEFFERY W (10)	
	BUSINESS SALES & INFORMATION (10)	
	CHRIS TIAN S CIE N CE CHURCHE S RE ADIN G ROOMS & OFFICE S C (10)	
	CAL MART TRAVEL SERVICE (10)	
	CAMPBELL MITHUN ESTY ADVERTISING (10)	
	CHUBB LIFE AMERICA (10)	

Year	Uses	Source
1995 (continued)		
	CHUBB SOVEREIGN LIFE (10)	
	CINEQUEST (10)	
	DANA TOO (10)	
	DAVIS K (10)	
	DOUGLAS M E (10)	
	DPKELLIS GREGORY J (10)	
	DRON DIANA M (10)	
	DUFFY PATRICK J ATTY MONTELEONE & MCCRORY (10)	
	EDGAR DUNN & COMPANY (10)	
	FINGLETON JOSEPH ATTY WIEDNER SWANSON & PAUL (10)	
	FLEMING DAVID W ATTY LATHAM AND WATKINS (10)	
	FUCHSMAN JEFFREY P ATTY BALLARD ROSENONERST O&GOP (10)	
	GIBSON ARNOLD & ASSOC INC (10)	
	GLASMAN CHARLES ATTY WIEDNER SWANSON & PAUL (10)	
	GOLPER JOHN B ATTY BALLARD ROSENBERG & GOLPER (10)	
	HABEL JAMES ATTY WIEDNER SWANSON & PAUL (10)	
	HALE G ROBERT MONTELEONE & MC CRORY ATTY (10)	
	HAMILTON RABINOVITZ & ALSCHULER (10)	
	HAMRICK RAYMOND A III A LAW CORP (10)	
	HARTFORD STEAM BOILER INSPECTION & INSURANCE CO (10)	
	HICKORY GAL MART TRAVEL (10)	
	HILDENBRAND LORI ATTY WIEDNER SWANSON & PAUL (10)	
	HILL JANET M ATTY BALLARD ROSENBERG & GOLPER (10)	
	HILL JAY S ATTY WIEDNER SWANSON & PAUL (10)	
	HIRAM WALKER (10)	
	HR & A (10)	
	I DOUGLAS MICHAEL TELEVISION INC (10)	
	I LUEKE STEPHEN R ATTY BALLARD ROSENBERG & GOIPER (10)	
	ICF KAISER ENGINEERING (10)	
	INGALSBE W ILLIAM J ATTY MONTELEONE & MCCRORY (10)	
	KMW PRODUCTION (10)	
	KAHLUA COMPANY THE (10)	
	KITAGAWA DAWN T ATTY BALLARD ROSENBERG & GOLPER R (10)	
	KNOPFLER & ROBERTSON (10)	
	KNOPFLER GEORGE (10)	
	LAKESIDE CAFE (10)	
	LASCHELD ELIZABETH M (10)	
	LATHAM AND WATKINS (10)	
	LEE DICKINSON & NOLTA ATTYS (10)	
	LEE G WILLIAM ATTY (10)	
	LOFSTROM MARK ATTY WIEDNER SWANSON & PAUL (10)	

Year	Uses	Source
1995 (continued)		
	LOVEN PAUL ATTO WIEDNER SWANSON & PAUL (10)	
	LUEKE GILBERT W (10)	
	MCA DEVELOPMENT COMPANY (10)	
	MON TE LE ON E & MCCRORY ATTY (10)	
	MTV NETWORKS (10)	
	MANNING SCOTT (10)	
	MARITZ MOTIVATION (10)	
	MARTINEZ CRISOSTOMO & TERESITA (10)	
	MC DOWELL JOHN T ATTY BALLARD ROSENBERG & GOLPER (10)	
	MC GUIRE THOMAS P ATTY MONTELEONE & MCCRORY (10)	
	MESSENGERS INC (10)	
	MICHAELSON ELLEN ATTY WIEDNER SWANSON & PAUL (10)	
	MILLER JOSEPH A ATTY MONTELEONE & MCCRORY (10)	
	MILLER MASON & DICKENSON SEE GODWINS OOKE & DICKENSON (10)	
	MILLER ROBERT V (10)	
	MINCHELLA MICHAEL F ATTY MONTELEONE & MCCRRY (10)	
	MURPHY TOM ATTY WIEDNER SWANSON & PAUL (10)	
	MUTUAL OF OMAHA INS CO GROUP INS (10)	
	MUTUAL OF OMAHA INS CO GROUP INS (10)	
	NATIONAL COUNCIL ON CHILD ABUSE & FAMILY VIOLENCE (10)	
	NIPPON FIRE & MARINE INS CO (10)	
	NO DELAY COURIERS (10)	
	NOLTA L FRANKLIN ATTY (10)	
	PAPPAS CHRISTOPHER P (10)	
	POPCORN ENTERTAINMENT (10)	
	PRO SOURCE GROUP (10)	
	PROFESSIONAL LIABILITY CLAIM MANAGERS (10)	
	PROFESSIONAL LOSS CONTROL (10)	
	PROTECTIVE LIFE INSURANCE COMPANY (10)	
	PRUDENTIAL REINSURANCE (10)	
	PUTNAM PHILIP C ATTY MONTELEONE & MCCRORY (10)	
	RAPPAPORT ANDREW ATTY WIEDNER SWANSON & PAUL (10)	
	RESIDENTIAL FUNDING CORP (10)	
	RICKETTS DONALD ATTY WIEDNER SWANSON & PAUL (10)	
	RIGHT NOW MESSENGER (10)	
	RIMAR PRODUCTIONS (10)	
	ROBERTSON ALEXANDER ATTY (10)	
	ROLLINS BURDICK HUNTER OF SOUTHERN CALIFORNIA PLEASE SEE ROL (10)	
	ROLLINS HUDIG HALL OF SOUTHERN CALIFORNIA INC (10)	
	ROMANCE MUSIC PRODUCTION (10)	

Year	Uses	Source
1995 (continued)		
	ROSENBERG RICHARD S ATTY BALLARD ROSENBERG & GOLPER (10)	
	ROYMAN DAVID C (10)	
	S PRIN T RESIDENTIAL SALES & INFORMATION (10)	
	SHIELDS DONALD J ATTY MONTELEONE & MCCRORY (10)	
	SHOWTIME NETWORKS INC (10)	
	SHUSTER SUSANNA ATTY WIEDNER SWANSON & PAUL (10)	
	SOREMA NORTH AMERICA REINSURANCE (10)	
	SOUTHERN MARINE & AVIATION INC (10)	
	SPRINGMAID HOME FASHIONS DIVISION (10)	
	SPRINGS INDUSTRIES INC (10)	
	STONEPINE PRODUCTION (10)	
	SWANSON JOEL ATTY WIEDNER SWANSON & PAUL (10)	
	TEXACO INC (10)	
	TEXACO REFINING & MARKETING INC (10)	
	TIPPING ELLEN M (10)	
	TRAVELERS COMPANIES THE (10)	
	TRI CITY BROKERAGE INC (10)	
	US SPRINT PLEASE SEE SPRINT (10)	
	UNITED OF OMAHA LIFE INS CO GROUP INS (10)	
	UNIVERSAL CITY (10)	
	UNIVERSAL CITY WALK (10)	
	UNIVERSAL WHOLESALE (10)	
	VIACOM ENTERPRISES (10)	
	VIACOM INTERNATIONAL (10)	
	WASSERMAN HELENE J ATTY BALLARD ROSENBERG & GOLPER (10)	
	WIEDMANNO WILL HANNS & PATRICIA RSDA (10)	
	WIEDMANNO WILL HANNS & PATRICIA RSDA (10)	
	WILLIAMS GEORGE ATTY WIEDNER SWANSON & PAUL (10)	
	YOKOMIZA DOUGLAS ATTY MONTELEONE & MCCRORY (10)	
	A (10)	
	I ASSOCIATED AVIATION UNDERWRITERS (10)	
	I CHRISTIAN SCIENCE MONITOR LOS ANGELES BUREAU (10)	
	I MARTINEZ CYNTHIA ATTY WIEDNER SWANSON & PAUL (10)	
	I MILLER ROBYN L (10)	
	I WIEDNER SWANSON & PAUL (10)	
	L KNOPFLER GEORGE ATTY (10)	
	L MANNING SELVAGE & LEE (10)	
	T DAVIS KAREN ATTY WIEDNER SWANSON & PAUL (10)	
	MCA HOME ENTERTAINMENT (70)	
	MCA RECORDS INC (70)	
	NARA TSUTOMU E 7 (70)	
	P NARADA PRODUCTIONS (70)	

Year	Uses	Source
1995 (continued)		
	SILAS RECORDS (70)	
	UNICITY MUSIC (90)	
	WET DESIGN (90)	
	BANK OF AME RICA CONTD (110)	
	UNIVERSAL CITY BRANCH (110)	
	ZEBRA RECORDS (188)	
	****LANKERSHIM BLVD****	Pacific Bell Telephone
	GENERAL IDEA HOLLAND PREUIT STUDO CTY (3855)	
	HOLLAND PREUIT STUDO CTY (3855)	
	INTERNATL MARKETING MEDIA STUDO CTY (3855)	
	PREUIT HOLLAND STUDO CTY (3855)	
	PRODUCTION TRAVEL & TOURS STUDO CTY (3855)	
	REVENGE PICTURES INC STUDO CTY (3855)	
	SYLRON INTERNATL STUDO CTY (3855)	
	VIDEO AGENCY THE STUDO CTY (3855)	
	BUDGET CAR AND TRUCK RENTAL CAR AND TRUCK RENTAL STATIONS OT (3885)	
	****UNIVERSAL CITY PLZ****	Pacific Bell Telephone
	AGAJANIAN CARY J C ATTORNEY AT LAW NH (10)	
	AGAJANIAN MCFALL & TOMLINSON ATTORNEYS AT LAW NH (10)	
	ALLDERDICE LINDA A ATTY BALLARD ROSENBERG & GOLPER NH (10)	
	ALLEN JOHN ATTY WIEDNER SWANSON & PAUL NH (10)	
	AMATO JAMES ATTY WIEDNER SWANSON & PAUL NH (10)	
	BALLARD KENNETH R ATTY BALLARD ROSENBERG & GOLPER NH (10)	
	BALLARD ROSENBERG & GOLPER ATTYS NH (10)	
	BERLIN KEITH ATTY WIEDNER SWANSON & PAUL NH (10)	
	BREYER JANET H ATTY BALLARD ROSENBERG & GOLPER NH (10)	
	BRODY ROBERT ATTY WIEDNER SWANSON & PAUL NH (10)	
	DAVIS KAREN ATTY WIEDNER SWANSON & PAUL NH (10)	
	DUFFY PATRICK J ATTY MONTELEONE & MCCRORY NH (10)	
	FINGLETON JOSEPH ATTY WIEDNER SWANSON & PAUL NH (10)	
	FUCHSMAN JEFFREY P ATTY BALLARD ROSENBERG & GOLPER NH (10)	
	GOLPER JOHN B ATTY BALLARD ROSENBERG & GOLPER NH (10)	
	HABEL JAMES ATTY WIEDNER SWANSON & PAUL NH (10)	
	HALE G ROBERT NH (10)	
	HAMILTON RABINOVITZ & ALSCHULER NH (10)	
	HILDENBRAND LORI ATTY WIEDNER SWANSON & PAUL NH (10)	

Year	Uses	Source
1995 (continued)		
	HILL JANET M ATTY BALLARD ROSENBERG & GOLPER NH (10)	
	HILL JAY S ATTY WIEDNER SWANSON & PAUL NH (10)	
	HIRAM WALKER NH (10)	
	HR & A NH (10)	
	INGALSBE WILLIAM J ATTY MONTELEONE & MCCRORY NH (10)	
	KITAGAWA DAWN T ATTY BALLARD ROSENBERG & GOLPER NH (10)	
	LAFFAN WILLIAM ATTY WLEDNER SWANSON & PAUL NH (10)	
	LEUKE STEPHEN R ATTY BALLARD ROSENBERG & GOLPER NH (10)	
	LOFSTROM MARK ATTY WIENER SWANSON & PAUL NH (10)	
	LOVEN PAUL ATTY WIEDNER SWANSON & PAUL NH (10)	
	MANNING SELVAGE & LEE NH (10)	
	MARTINEZ CYNTHIA ATTY WIEDNER SWANSON & PAUL NH (10)	
	MCA DEVELOPMENT COMPANY UNIVERSAL CITY (10)	
	MCCRORY DARRELL P ATTY MONTELEONE & MCCRORY NH (10)	
	MCDOWELL JOHN T ATTY BALLARD ROSENBERG & GOLPER NH (10)	
	MCGUIRE THOMAS P ATTY MONTEBEONE & MCCORY NH (10)	
	MICHAELSON ELLEN ATTY WIEDNER SWANSON & PAUL NH (10)	
	MILLER JOSEPH A ATTY MONTELEONE & MCCRORY NH (10)	
	MILLER ROBYN L NH (10)	
	MINCHELLA MICHAEL F ATTY MONTELEONE & MACRORY NH (10)	
	MONTELEONE & MCCRORY ATTY NH (10)	
	MTV NH (10)	
	MURPHY TOM ATTY WIEDNER SWANSON & PAUL NH (10)	
	MUTUAL OF OMAHA INS CO GROUP INS NH (10)	
	NO DELAY COURIERS NH (10)	
	PROFESSIONAL LIABILITY CLAIM MANAGERS NH (10)	
	PRUDENTIAL REINSURANCE NH (10)	
	PUTNAM PHILIP C ATTY MONTELEONE & MCCRORY NH (10)	
	RAPPAPORT ANDREW ATTY WIEDNER SWANSON & PAUL NH (10)	
	RICKETTS DONALD ATTY WIEDNER SWANSON & PAUL NH (10)	
	RIGHT NOW MESSENGER NH (10)	
	ROSENBERG RICHARD S ATTY BALLARD ROSENBERG & GOLPER NH (10)	
	SANTANA ARTURO ATTY NH (10)	
	SHIELD DONALD J NH (10)	

Year	Uses	Source
1995	(continued)	
	SHIELDS DONALD J ATTY MONTELEONE & MCCRORY NH (10)	
	SHOWTIME NETWORKS INC NH (10)	
	SHUSTER SUSANNA ATTY WIEDNER SWANSON & PAUL NH (10)	
	SWANSON JOEL ATTY WIEDNER SWANSON & PAUL NH (10)	
	TEXACO INC NH (10)	
	TEXACO REFINING & MARKETING INC UNIVERSAL CITY (10)	
	TRI CITY BROKERAGE INC NH (10)	
	UNITED OF OMAHA LIFE INS CO GROUP INS NH (10)	
	WASSERMAN HELENE J ATTY BALIARD ROSENBERG & GOLPER NH (10)	
	WIEDNER BURK ATTY WIEDNER SWANSON & PAUL NH (10)	
	WILLIAMS GEORGE ATTY WIEDNER SWANSON & PAUL NH (10)	
	YOKOMIZO DOUGLAS NH (10)	
	YOKOMIZO DOUGLAS ATTY MONTELEONE & MCCRORY NH (10)	
	MCA RECORDS INC UNIVERSAL CITY (70)	
	MERCHANDISING CORPORATION OF AMERICA UNIVERSAL CITY (70)	
	NARADA PRODUCTIONS UNIVERSAL CITY (70)	
	SILAS RECORDS UNIVERSAL CITY (70)	
	DATA PROTECTION INCORPORATED UNVSL CTY (90)	
	UNICITY MUSIC UNIVERSAL CITY (90)	
	WET DESIGN NH (90)	
1996	Address Not Listed in Research Source	GTE
1999	Address Not Listed in Research Source	Haines Company
2000	Address Not Listed in Research Source	Pacific Bell Telephone
2001	****LANKERSHIM BLVD****	Haines & Company, Inc.
	XXXX (3838)	
	XXXX (3844)	
	XXXX (3850)	
	LACTYREC 8 PKS (3919)	
	PLAYGROUND (3919)	
2003	Address Not Listed in Research Source	Haines & Company
2004	Address Not Listed in Research Source	Haines Company
2006	Address Not Listed in Research Source	Haines Company

"Linking Technology with Tradition"®

Sanborn® Map Report

Ship To: Dorothy Meyer
Camp, Dresser & McKee,
18581 Teller Avenue
Irvine, CA 92612

Order Date: 8/25/2006 **Completion Date:** 8/28/2006
Inquiry #: 1743646.3s
P.O. #: NA
Site Name: Universal Studios
Address: 100 Universal City Plaza
City/State: Universal City, CA 91608
Cross Streets:

Customer Project: Universal
1031257BAR 949-752-5452

This document reports that the largest and most complete collection of Sanborn fire insurance maps has been reviewed based on client supplied information, and fire insurance maps depicting the target property at the specified address were not identified.

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EDR Historical Topographic Map Report

Universal Studios
100 Universal City Plaza
Universal City, CA 91608

Inquiry Number: 1743646.4

August 28, 2006

EDR® Environmental Data Resources Inc

The Standard in Environmental Risk Management Information

440 Wheelers Farms Rd
Milford, Connecticut 06461

Nationwide Customer Service

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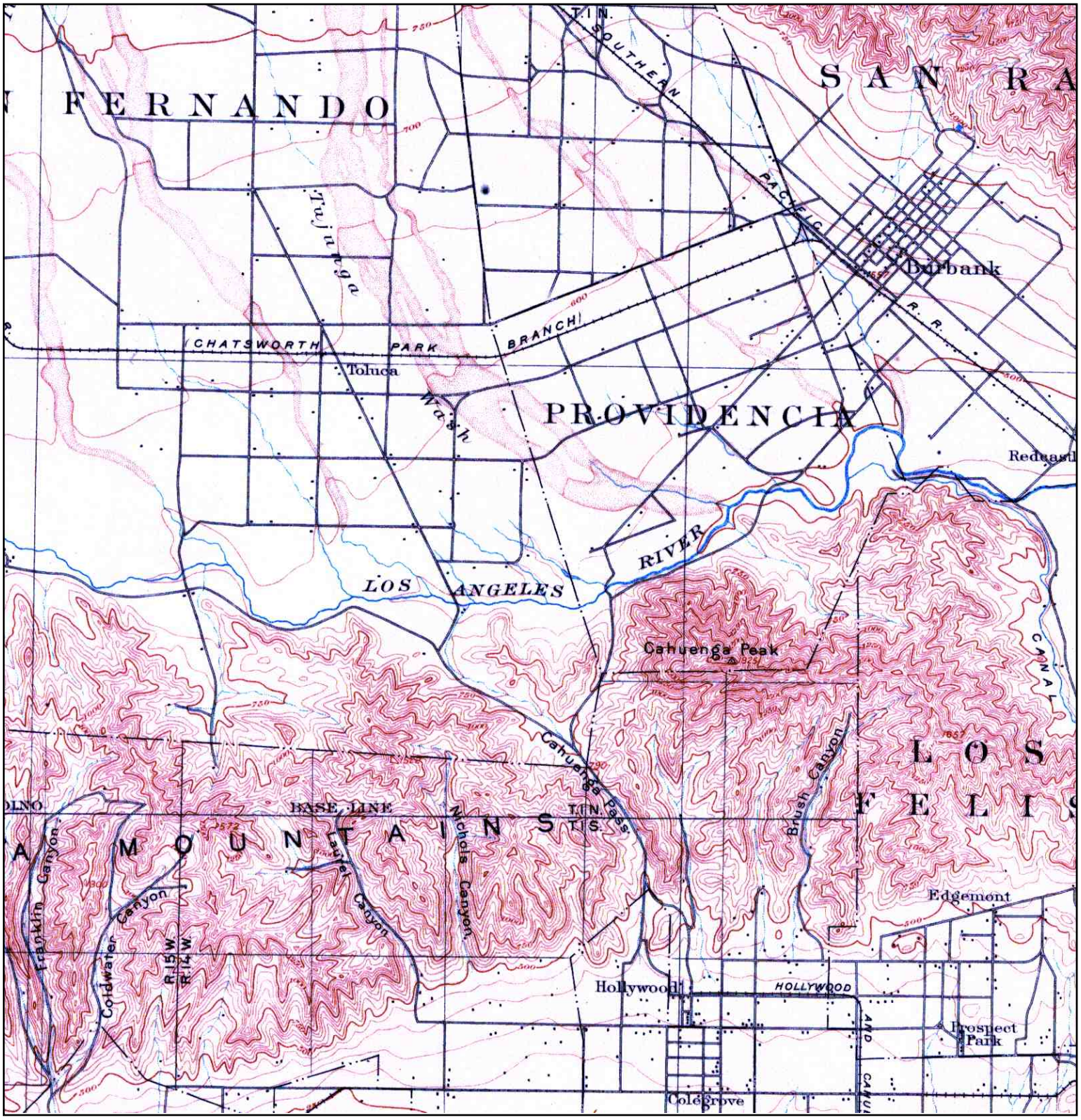
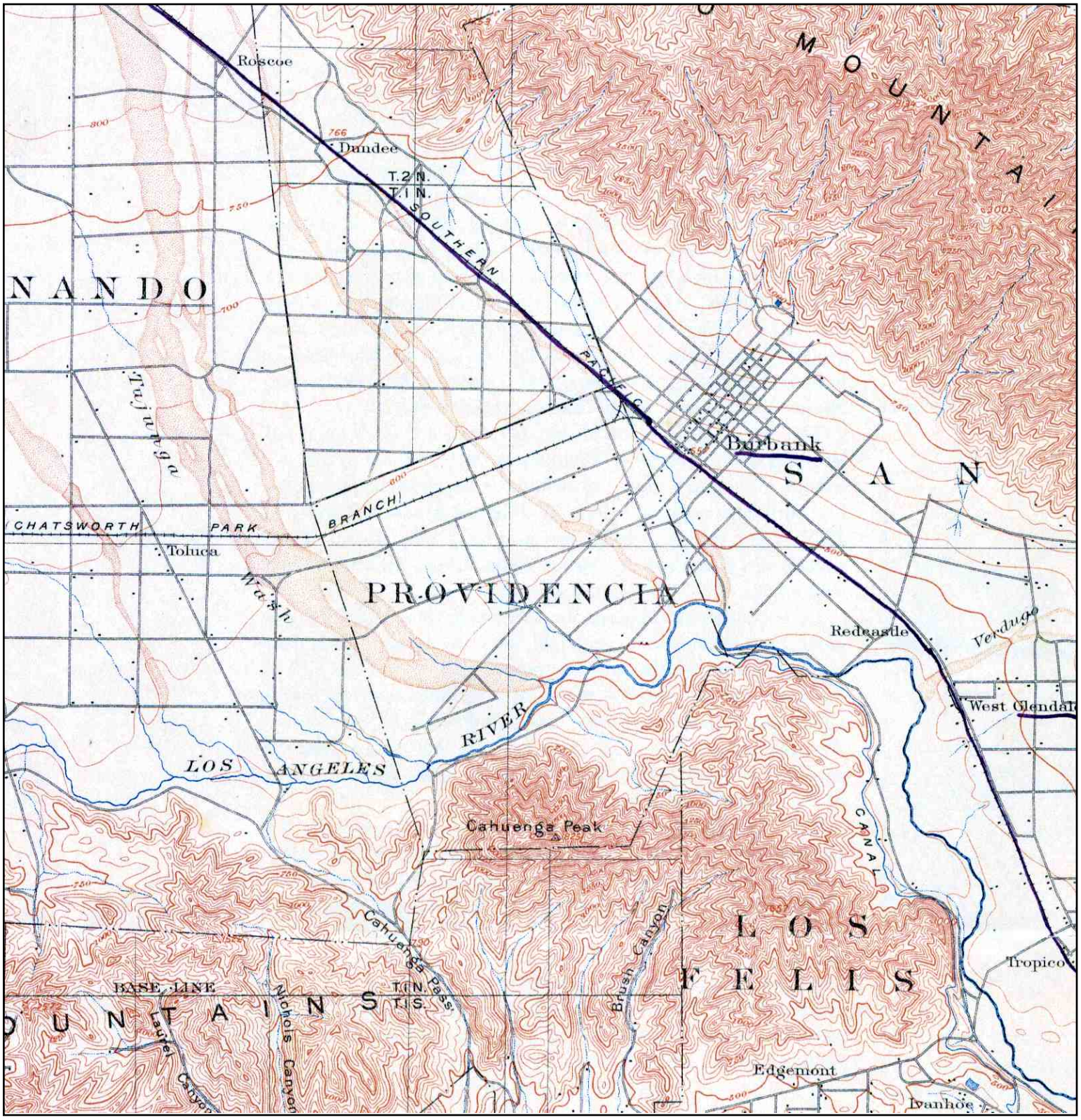
Historical Topographic Map



N	TARGET QUAD NAME: SANTA MONICA MAP YEAR: 1902 SERIES: 15 SCALE: 1:62500	SITE NAME: Universal Studios ADDRESS: 100 Universal City Plaza Universal City, CA 91608 LAT/LONG: 34.1383 / 118.3516	CLIENT: Camp, Dresser & McKee, Inc. CONTACT: Dorothy Meyer INQUIRY#: 1743646.4 RESEARCH DATE: 08/28/2006

Historical Topographic Map



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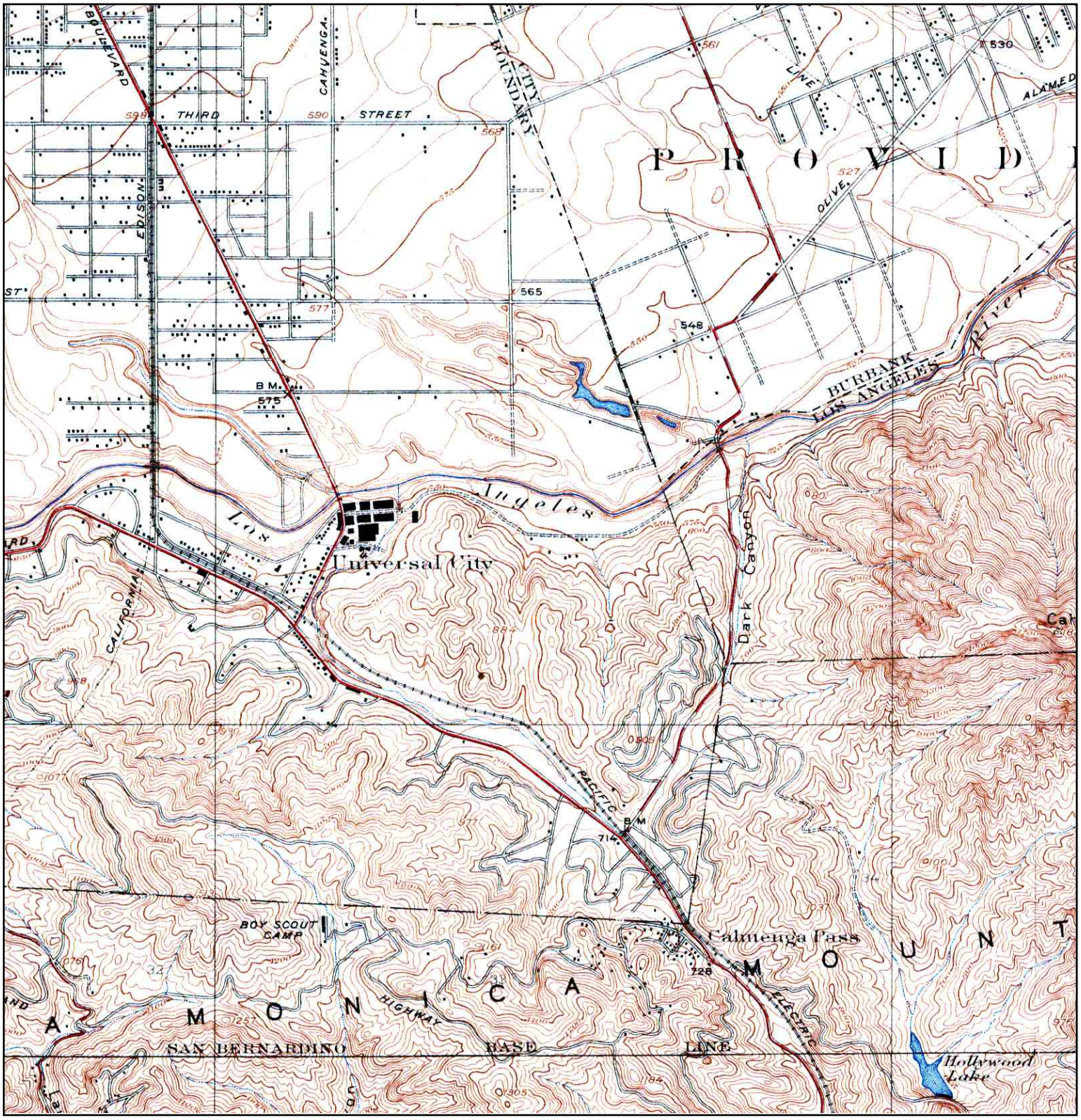
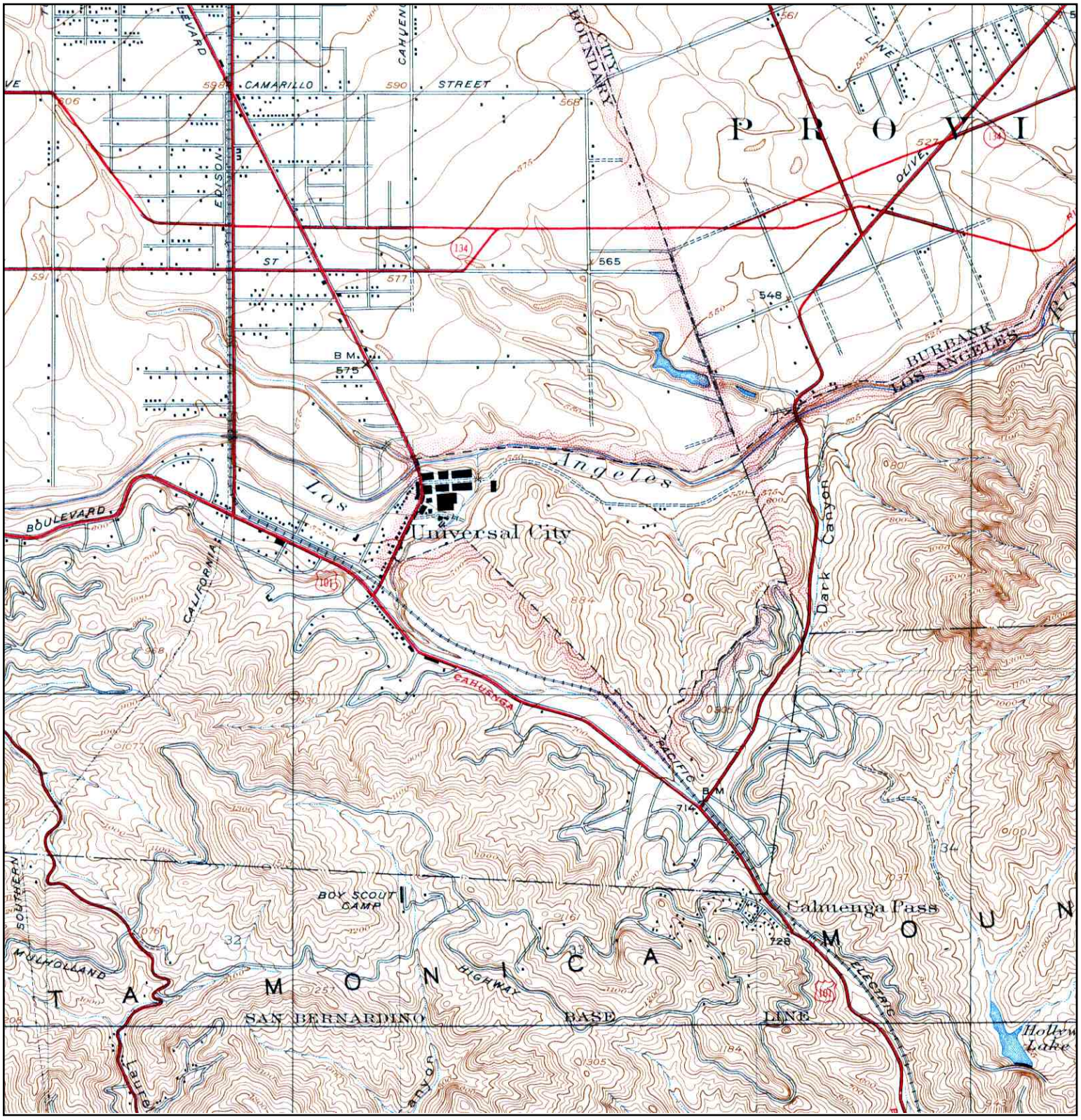


N	TARGET QUAD NAME: BURBANK MAP YEAR: 1926 SERIES: 6 SCALE: 1:24000	SITE NAME: Universal Studios ADDRESS: 100 Universal City Plaza Universal City, CA 91608 LAT/LONG: 34.1383 / 118.3516	CLIENT: Camp, Dresser & McKee, Inc. CONTACT: Dorothy Meyer INQUIRY#: 1743646.4 RESEARCH DATE: 08/28/2006

Historical Topographic Map



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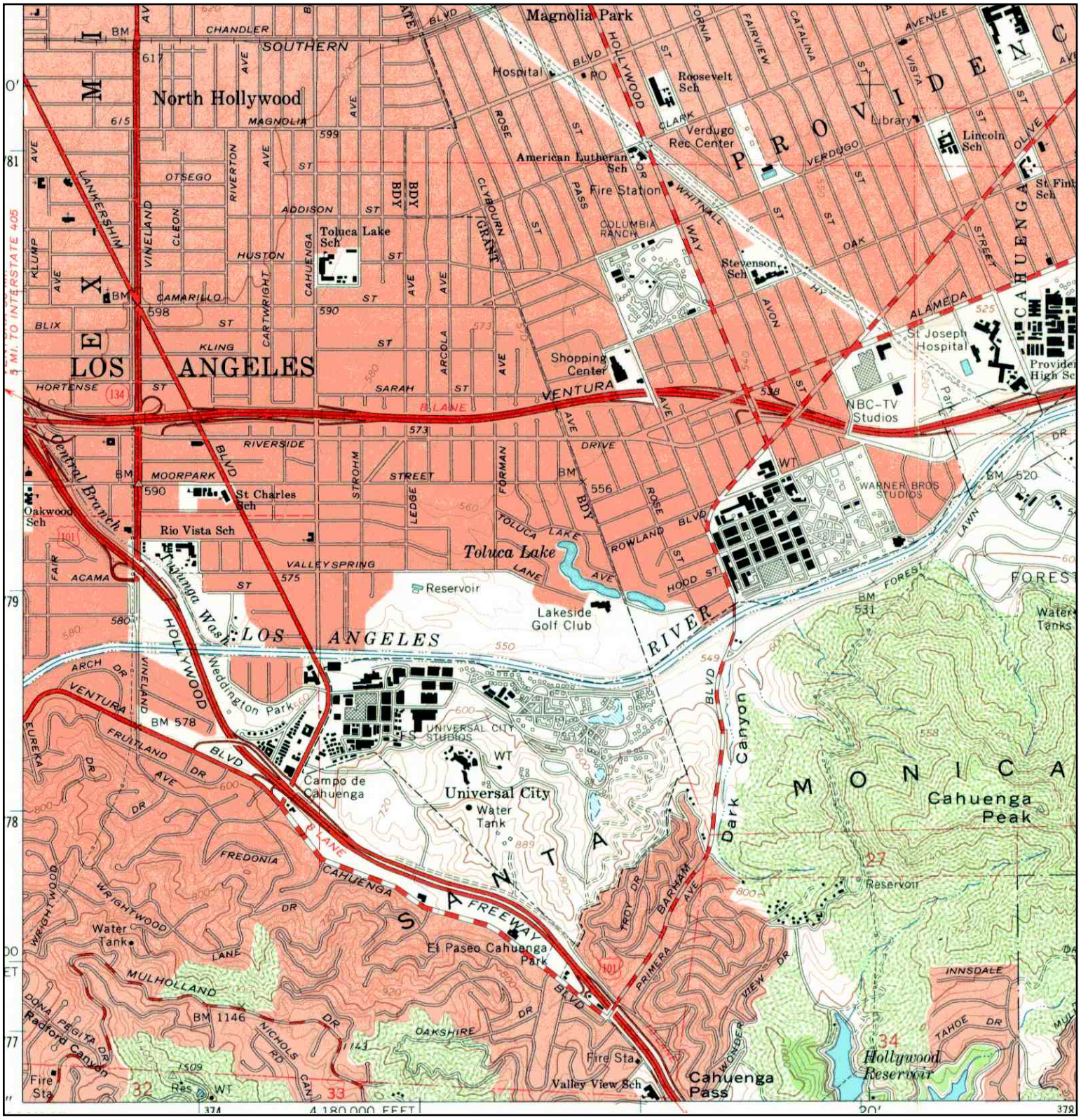
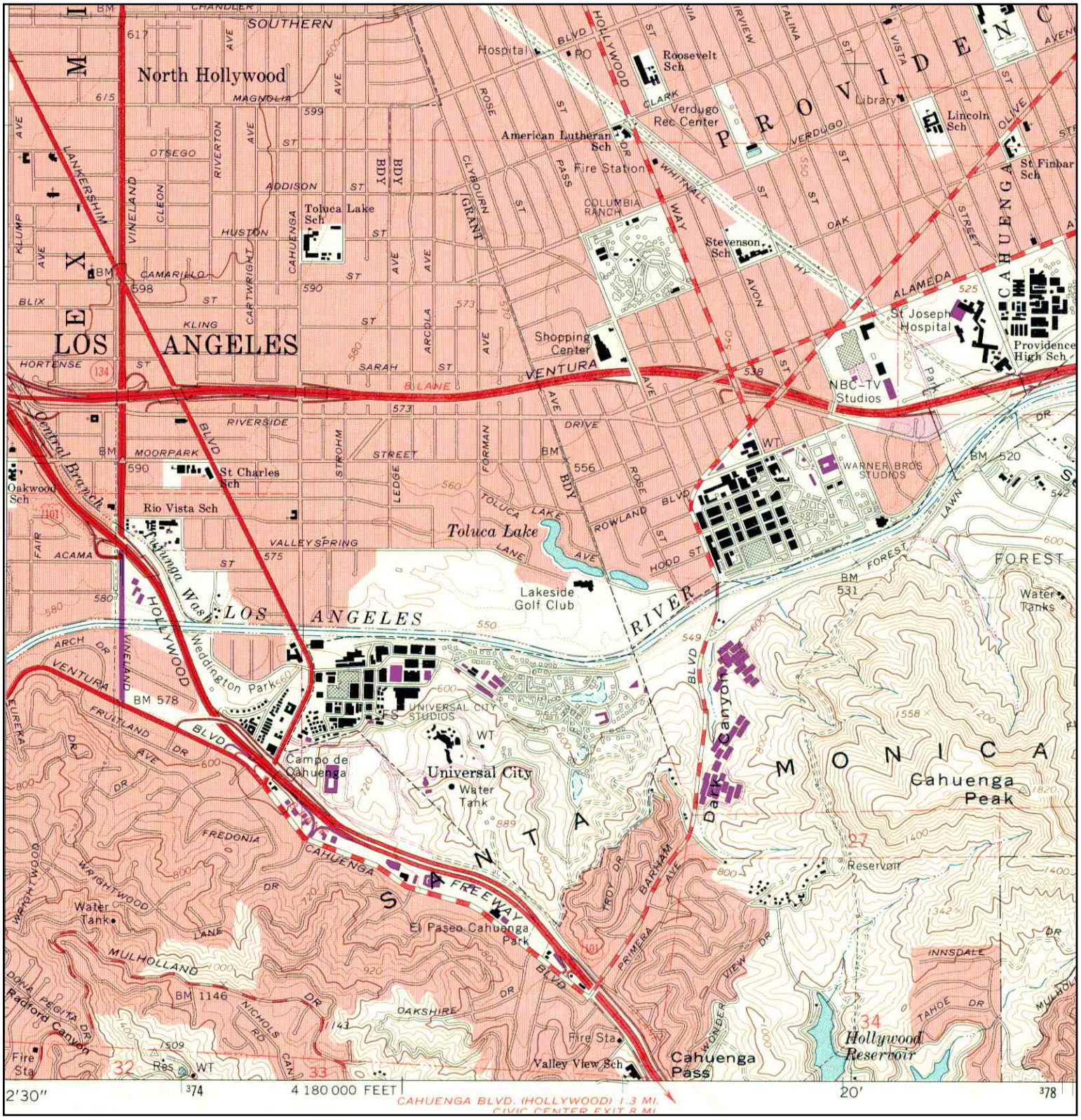
Historical Topographic Map



N	TARGET QUAD NAME: BURBANK MAP YEAR: 1966 SERIES: 7.5 SCALE: 1:24000	SITE NAME: Universal Studios ADDRESS: 100 Universal City Plaza Universal City, CA 91608 LAT/LONG: 34.1383 / 118.3516	CLIENT: Camp, Dresser & McKee, Inc. CONTACT: Dorothy Meyer INQUIRY#: 1743646.4 RESEARCH DATE: 08/28/2006

Historical Topographic Map



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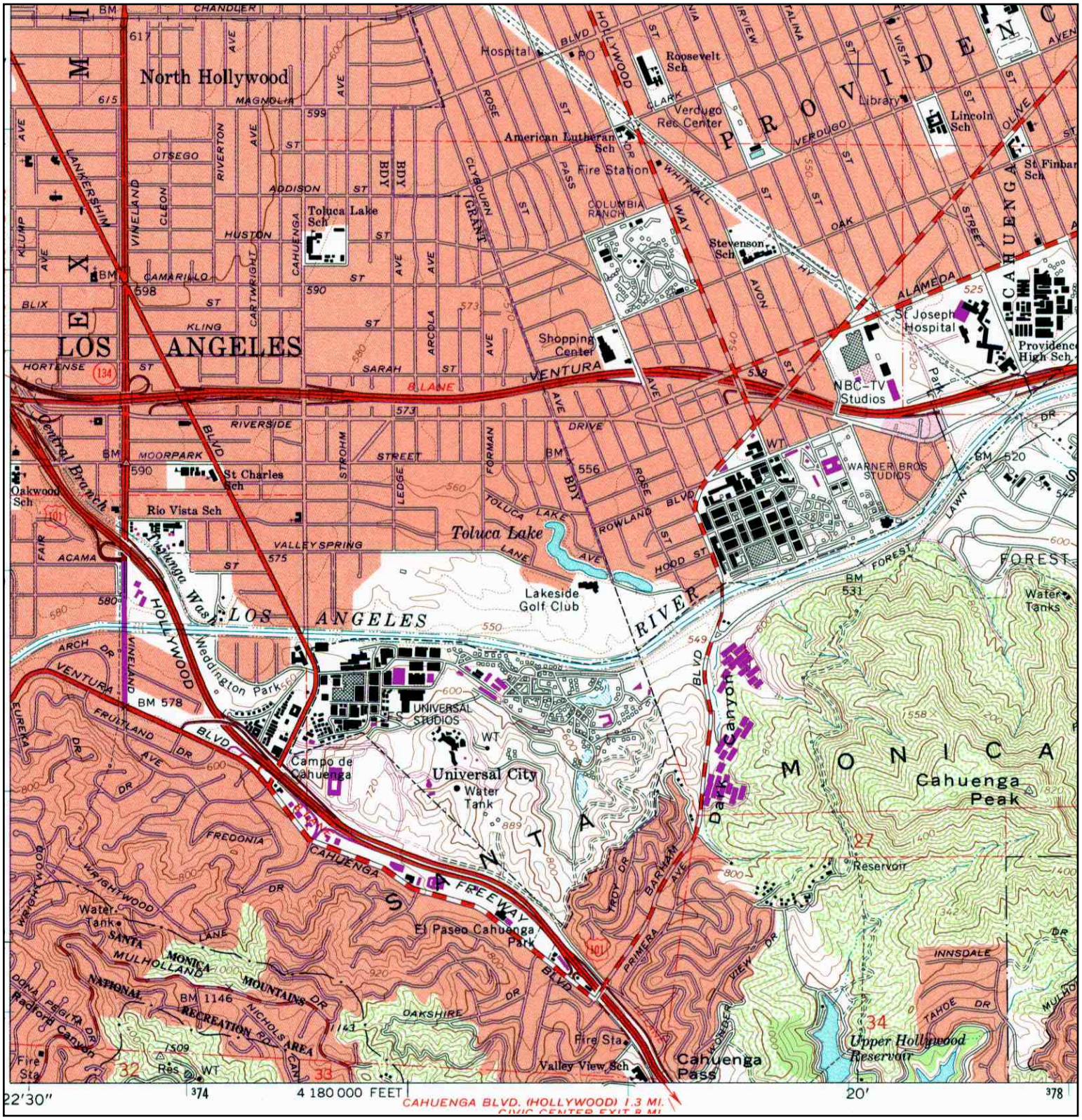

N	TARGET QUAD NAME: BURBANK MAP YEAR: 1994 REVISED: 1966 SERIES: 7.5 SCALE: 1:24000	SITE NAME: Universal Studios ADDRESS: 100 Universal City Plaza Universal City, CA 91608 LAT/LONG: 34.1383 / 118.3516	CLIENT: Camp, Dresser & McKee, Inc. CONTACT: Dorothy Meyer INQUIRY#: 1743646.4 RESEARCH DATE: 08/28/2006

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Universal Studios
100 Universal City Plaza
Universal City, CA 91608

Inquiry Number: 1743646.5

August 29, 2006

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Date EDR Searched Historical Sources:

Aerial Photography August 29, 2006

Target Property:

100 Universal City Plaza

Universal City, CA 91608

Year	***Scale***	***Details***	***Source***
1928	Aerial Photograph. Scale: 1"=833'	Flight Year: 1928	Fairchild
1938	Aerial Photograph. Scale: 1"=833'	Flight Year: 1938	Laval
1940	Aerial Photograph. Scale: 1"=833'	Flight Year: 1940	Fairchild
1956	Aerial Photograph. Scale: 1"=833'	Flight Year: 1956	Fairchild
1965	Aerial Photograph. Scale: 1"=833'	Flight Year: 1965	Fairchild
1976	Aerial Photograph. Scale: 1"=833'	Flight Year: 1976	Teledyne
1989	Aerial Photograph. Scale: 1"=833'	Flight Year: 1989	USGS
1994	Aerial Photograph. Scale: 1"=833'	Flight Year: 1994	USGS
2002	Aerial Photograph. Scale: 1"=833'	Flight Year: 2002	USGS

INQUIRY #: 1743646.5

YEAR: 1928

= 833'

N

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INQUIRY #: 1743646.5

YEAR: 1938

= 833'

N

EDR Environmental Data Resources Inc

INQUIRY #: 1743646.5

YEAR: 1940

= 833'

N

EDR Environmental Data Resources Inc

INQUIRY #: 1743646.5

YEAR: 1956

= 833'

N

EDR Environmental Data Resources Inc

INQUIRY #: 1743646.5

YEAR: 1965

N

= 833'

INQUIRY #: 1743646.5

YEAR: 1976

= 833'

N

EDR Environmental Data Resources Inc

INQUIRY #: 1743646.5

YEAR: 1989

N

= 833'

INQUIRY #: 1743646.5

YEAR: 1994

= 833'

N

EDR Environmental Data Resources Inc

INQUIRY #: 1743646.5

YEAR: 2002

= 833'

N

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Appendix B
RF Safety Report

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www.RFSafetySolutions.com

RF Safety Report

An Analysis of RF Field Levels at the NBC Universal Property in Universal City, California

Prepared for
NBC Universal
Universal City, California

December, 2009

Executive Summary

Purpose

The West Coast real estate department of NBC Universal commissioned this RF Safety Report. The primary objective of this analysis and report is to determine whether the RF field levels in the vicinity of the planned satellite-uplink systems at the NBC Universal property in Universal City, California, will be in compliance with Federal Communications Commission (FCC) and Occupational Safety and Health Administration (OSHA) Regulations regarding RF radiation safety. The other objectives are to determine whether operating procedures represent industry-best practice regarding RF safety and whether any safety risks exist.

Description of NBC Universal Property

The NBC Universal property includes 391 acres in Universal City, California, that include the Universal Studios theme park, tram tour, City Walk, and studio and production operations. A project consisting of new commercial uses, a hotel, and multi-family residential uses is proposed for the property. There are no known sources of significant RF energy currently present at this facility. Satellite-uplink antenna systems are being considered for installation at this facility in connection with the proposed project. In addition, it is likely that a variety of wireless communications antennas such two-way radio; fire, police, and emergency service systems; and cellular systems may be considered in the future.

The existing antennas at the facility include receive-only (RO) satellite antennas and some microwave point-to-point antennas. RO antennas do not transmit energy and are therefore not an RF safety concern. The vast majority of typical microwave point-to-point antennas operate at a maximum power level of 2 Watts. At this power level, those antennas are not a concern even for someone directly in front of them.

Potential RF Safety Concerns with Satellite and Wireless Services Antennas

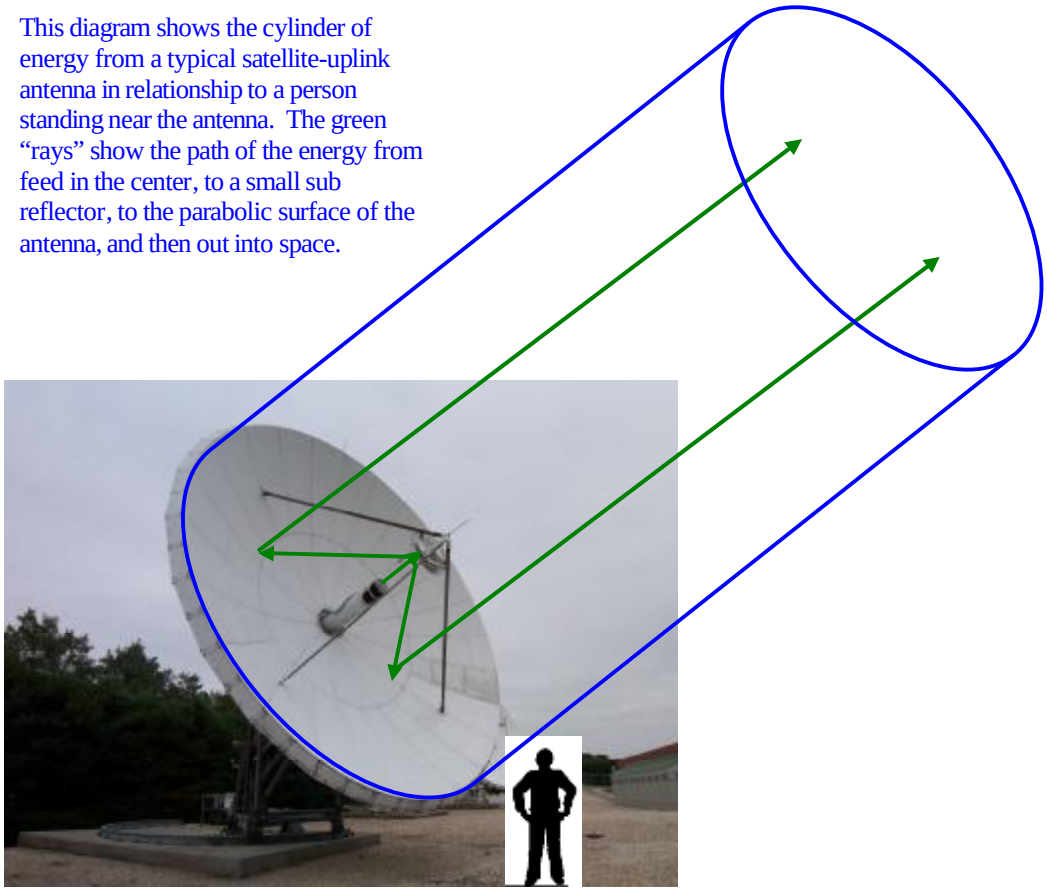
This analysis and report covers the type of satellite-uplink antennas that are being considered for the project. In addition, this report outlines certain performance standards to ensure the safety of other antenna systems, such as wireless services systems, that may be considered in the future.

The reference point for compliance is the Federal Communications Commission's (FCC) Maximum Permissible Exposure (MPE) limits for General Population/ Uncontrolled exposure. All references to energy levels are in terms of percentage of these MPE limits. *Section 3: Standards and Regulations* covers this subject in greater detail.

Satellite Transmitting Antennas

Reflector antennas such as the satellite-uplink antennas [1] described in this report can be analyzed with confidence. The resultant calculations are inherently conservative and are higher than would be found with measurements since the calculations are based on the maximum possible energy level rather than the average level. With these antennas, all the energy is confined to a cylindrical beam. Energy starts at a focal point in a manner similar to a bulb in a flashlight and reflects off the antenna reflector. The intensity of the energy in this beam depends primarily on two factors—the amount of energy fed into the antenna and the size of the antenna. Although larger diameter antennas have a higher gain, which is a measure of how efficiently the energy in the beam can be focused in the distance, from an RF safety perspective, the smaller the antenna, the greater the concern. This is because gain does not become a factor for several hundred feet from the antenna. Gain begins to come into play hundreds of feet above the ground since the satellite antennas are all pointed upward towards satellites in orbit above Earth's equator. When you are close enough to a satellite antenna to get into the beam, the energy level or energy density depends on the size of the antenna. The smaller the diameter of the antenna is, the smaller the beam. The smaller the beam is, the greater the energy density since the energy is distributed over a smaller area. A simple analogy is to adjust a spotlight from a broad beam to a much smaller, brighter spot of light. It is important to understand that the only RF safety concerns are for individuals who get into the cylindrical beam of energy. There is no measurable energy outside the beam.

This diagram shows the cylinder of energy from a typical satellite-uplink antenna in relationship to a person standing near the antenna. The green "rays" show the path of the energy from feed in the center, to a small sub reflector, to the parabolic surface of the antenna, and then out into space.



[1] Satellite-uplink antennas transmit energy from the ground, or "uplink" to the satellite.

For most satellite antennas, even the RF field level within the cylindrical beam of the antenna is far below the FCC's MPE limits and thus not a safety concern. Some smaller antennas with relatively higher input levels of RF energy do exceed the FCC's public MPE limits. In these situations, it is important to mount the antennas above the ground or install restrictive barriers and signs to prevent people from getting into the beam.

For the majority of satellite antennas, the only RF safety hazards apply to maintenance personnel. For example, the energy level is very high at the focal point because the energy has not been distributed over the large area of the antenna reflector. In other cases, workers must be concerned with leaks in the waveguide[2] if their faces get very close to the site of the leak. The eyes are especially vulnerable to the high levels of RF energy that can be present very close to a leak site.

Microwave Point-to-Point Antennas

Microwave point-to-point antennas are similar to satellite antennas in that they use a small parabolic reflector to form a cylindrical beam of energy. These are terrestrial antennas that carry communications signals in a direct line of sight for a few miles. They are generally pointed close to horizontal. But, unlike satellite antennas that may have input power levels of several hundred Watts, the maximum input power for virtually all of these point-to-point systems is 2 Watts, and most are operated at even lower levels. The diameter of these antennas ranges from 1 to 10 feet. Even when the maximum power of 2 Watts is fed into the smallest (1-foot diameter) antenna, the field strength is well below the FCC's MPE limit for public exposure. There simply is not enough energy to be a concern.

[2] Waveguide is a form of RF "plumbing" used to conduct microwave frequency energy inside small rectangular or circular pipes made of copper. Breaks at junction points can become eye hazards for a distance up to about 3 feet from the leak point.

Wireless Services Antennas

There are a variety of systems that use similar antenna designs. Wireless services antennas are either omnidirectional or directional. Omnidirectional antennas, commonly referred to as whip antennas, radiate equally over 360 degrees but have very little energy directed upward or downward. Exposure concerns are limited to people who are within 20 feet of the antenna and *at the same elevation*. If the bottom of the antenna is as little as 2 feet above your head, the average RF field level that you would be exposed with the worst of these systems would still be below the FCC's MPE limit for public exposure.

Many wireless services antennas are directional. These are commonly called sector antennas. Sector antennas also have very little upward or downward energy, and there is virtually no energy behind these antennas. But since the energy is directed over less than 360 degrees, the safe zone extends out further than with whip antennas. Most tower antennas have 120-degree beams of energy and are mounted in sets of three to cover all directions. Most sector antennas on buildings have 90-degree beams since there is one on each side of the building. Exposure concerns for sector antennas extend out to about 50 feet *at the same elevation*.

There are no measurable RF field levels anywhere on this roof because almost all of the antennas are mounted on the perimeter and the energy is directed outward. The single antenna seen above the stairwell is pointed towards the roof but it has very little downward energy. The beam of energy from this antenna is above the heads of people standing on the roof.

Goals

The goals of NBC Universal are to:

- Minimize the risk to all personnel: employees, contractors, and visitors.
- Comply with all FCC Regulations.
- Comply with all OSHA Regulations.
- Comply with all state and local regulations.

Statement of Richard R. Strickland, RF Safety Consultant

Richard R. Strickland of RF Safety Solutions LLC certifies that the statements in this report accurately describe the characteristics of the various types of antennas described in this report and to the best of his knowledge, the conditions at the NBC Universal property in Universal City, California.

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Section
1

Analysis of Satellite Antennas

Calculations of Energy in the Main Beam and Other Hazards

Overview

The primary safety and compliance issues to be considered when planning a satellite antenna installation are

1. The maximum energy level within the beam of the antenna should be determined based on the maximum amount of energy that will ever be fed into the antenna.

2. If the maximum RF field level is less than the FCC's Maximum Permissible Exposure (MPE) limit for General Population/Uncontrolled exposure, the installation is compliant with the FCC Regulations, and there is no concern over anyone getting into the beam of the antenna.

3. If the maximum RF field level exceeds the FCC's MPE limit for General Population/Uncontrolled exposure, the installation must be made in a way that prohibits anyone from getting into the beam of the antenna. It is important to consider not only exposure to people on the ground but also to people who might visit nearby structures such as rooftops. A combination of antenna mounting height and/or access restriction in front of the antenna is normally used to meet these requirements and make the installation FCC compliant.

Normally, the main safety considerations with satellite-uplink antenna installations concern the personnel who maintain them. The only areas where the energy can be concentrated enough to be considered dangerous are areas that can normally be accessed by maintenance personnel. The major hazard is for personnel who work in the area at the focal point of the antenna where the energy is extremely concentrated. The antenna systems must be shut off to work in this area. The only time that there would be any energy outside of the cylindrical beam would be if a leak were to occur in the waveguide transmission line. This can present a significant RF safety hazard—an eye hazard—to anyone who gets their eyes within 2 to 3 feet of the site of a leak, but it is not a hazard to anyone else since the energy from a leak site spreads out in two directions and decreases rapidly with distance following the "inverse square law." **There are absolutely no RF safety concerns outside the antenna beam other than for maintenance operations.**

The primary communications objectives involve the ability of the satellite system to communicate between the ground and the satellite. The primary factors that affect system performance are

1. The gain of the antenna,

2. The amount of power delivered to the antenna, and

3. Weather conditions. For example, rain attenuates the signal, and additional power is often used in bad weather.

The gain of a satellite antenna increases with the diameter of the antenna. Gain can be viewed as the ability of the antenna to focus its energy. But gain applies a minimum of hundreds of yards from the antenna. Contrary to what many people believe, it is the smaller, lower-gain antennas that present the greatest RF safety risk (assuming similar levels of transmitter power). This is because the energy is concentrated over a smaller cross-sectional area with smaller antennas. One analogy is to compare the intensity of a flashlight beam with that of a laser.

While larger satellite antennas are invariably mounted so that the beam is well above the heads of people on the ground, this is not the case if smaller antennas, such as this 2.4-meter antenna, are mounted directly on the ground. In order to ensure compliance, the installation must be made in a manner that prevents people from getting into the beam of the antenna if the field level in the beam might exceed the FCC MPE limit for public exposure. Either one of two approaches can be used to achieve compliance.

1. Mount the antenna on an elevated platform. Access to the platform is restricted by locks or chains, and appropriate signage is installed.

2. Mount the antenna on the ground, and establish barriers at ground level to ensure that nobody is accidentally exposed to the beam of the antenna. These ground barriers are often composed of stanchions with chains between them with appropriate signs hung from the chains.

Regardless of the installation details, any antenna that has a calculated RF field level that exceeds the public MPE limit under worst-case conditions should be installed in a way that guarantees that the cylindrical beam is at least 7 feet above ground level in all areas to which people have access. This will ensure that even a tall person is not exposed to the energy from the antenna. As previously stated, a satellite antenna is fully compliant with the FCC Regulations providing that people cannot be exposed to the beam of energy unless they go to extraordinary means, such as using a ladder or scissor lift, regardless of the field intensity in the beam.

Analysis of Proposed Antennas

Overview of Proposed Antennas

Three Ku-band satellite-uplink antenna system designs being considered for installation at the NBC Universal Property in Universal City, California, were analyzed to determine any potential RF safety hazards.

- A 9.0-meter-diameter antenna with an input power of 200 Watts
- An 8.0-meter-diameter antenna with an input power of 200 Watts
- A 2.4-meter-diameter antenna with an input power of 125 Watts

Of these three antennas, the highest RF field level would be present in the beam of the smallest, the 2.4-meter-diameter antenna.

- The calculated RF field level in the main beam of the proposed 9.0-meter-diameter antenna is below the FCC's MPE limit for General Population/ Uncontrolled exposure when the system is operated at the maximum power level provided by NBC Universal personnel.
- The calculated maximum field level in the proposed 8-meter antenna slightly exceeds the MPE limit. However, the beams of both of these larger antennas are not accessible without using a ladder or other mechanical device.
- The calculated field strength in the main beam of the smallest antenna, the 2.4-meter-diameter antenna, exceeds the MPE limit for General Population/Uncontrolled exposure.

Detailed Analysis of Proposed Antennas

Detailed calculations were made in accordance with approved FCC methodology. These calculations are inherently conservative because they yield the maximum possible field strength within the beam of the antenna. Under almost all conditions, the average field strength is much more representative of the RF energy to which a person in the beam of the antenna would be exposed. The average field strength is one-fourth of the maximum calculated field strength. Measurements, which are fully accepted by the FCC as proof of compliance, invariably yield results that are very close to the average field strength when made fully within the beam of the antenna since spatial averaging measurement techniques are used. When one considers that the bottom lip of the antenna is always some distance above the ground and that proper spatially averaged measurements are made over the height of an adult starting at ground level, the measured field strength is even lower than the calculated average value.

The findings are as follows:

- **2.4-Meter-Diameter Transmit Antenna.** NBC Universal personnel report that the maximum input power into the feed horn of this antenna will be 125 Watts. The calculated *average* RF field levels within the beam are approximately 200 percent of the FCC's MPE limit for General Population/Uncontrolled exposure when the system is operated at full power. The calculated maximum field level is four times higher than the average, or eight times the FCC MPE limit for General Population/ Uncontrolled exposure, which also exceeds the MPE limit for Occupational/Controlled exposure.

- **8-Meter-Diameter Transmit Antenna.** NBC Universal personnel report that the maximum input power into the feed horn of this antenna will be 200 Watts. The calculated maximum field intensity in the beam of this antenna slightly exceeds the FCC's MPE limit for General Population/Uncontrolled exposure. Given that most antennas of this size are mounted with the lip of the reflector well above head height, this field intensity does not pose a risk. The installation will be fully compliant as long as the bottom lip of the antenna is mounted at least 5 feet above ground level because the FCC allows spatial averaging to be considered in evaluating human exposure.

- **9.0-Meter Transmit Antenna.** NBC Universal personnel report that the maximum input power into the feed horn of this antenna will be 200 Watts. The calculated maximum field intensity in the beam of this antenna is slightly below the FCC's MPE limit for General Population/Uncontrolled exposure. This antenna would be fully compliant with the FCC Regulations even if it were mounted in a manner that would allow people to get into the beam of the antenna. This is almost impossible given the mechanical design of the antenna.

Analysis of Other Potential Satellite Antennas

All of the comments in the overview of this section of the report are fully applicable to any satellite antenna that may be considered in the future. It is important to consider just two points:

1. If the maximum RF field level is less than the FCC's Maximum Permissible Exposure (MPE) limit for General Population/Uncontrolled exposure, the installation is compliant with the FCC Regulations, and there is no concern over anyone getting into the beam of the antenna.

2. If the maximum RF field level exceeds the FCC's MPE limit for General Population/Uncontrolled exposure, the installation must be made in a way that prohibits anyone from getting into the beam of the antenna.

The calculations shown in the following section can be used to conservatively analyze any proposed satellite antenna in full accordance with the FCC Regulations.

Satellite Antenna Calculations

Overview

The calculations for field strength radiated by reflector antennas are well known. The formula considers the size of the reflector antenna, the frequency, the gain, and the distance from the antenna. This formula is appropriate for the far field. The far field region for each of the proposed Universal City property antennas does not start for hundreds of feet —240 to 3,400 feet—in front of each antenna.

However, these calculations are inappropriate when determining field strength in the near field of an antenna. The near field of an antenna is subdivided into two regions—the reactive near field and the radiating near field. The reactive near field is the area where the potential exists for maintenance personnel, due to unforeseen or deliberate action, to be exposed to excessive RF fields. This region is the reactive near field. These calculations apply to all satellite-transmission system antennas planned for the Universal City property. Reactive near field calculations are based on antenna size, input power, and reflector efficiency. The reactive near field extends out a minimum of 200 feet for the types of antennas that are likely ever to be installed at the Universal City property.

Characteristics of Reflector Antennas

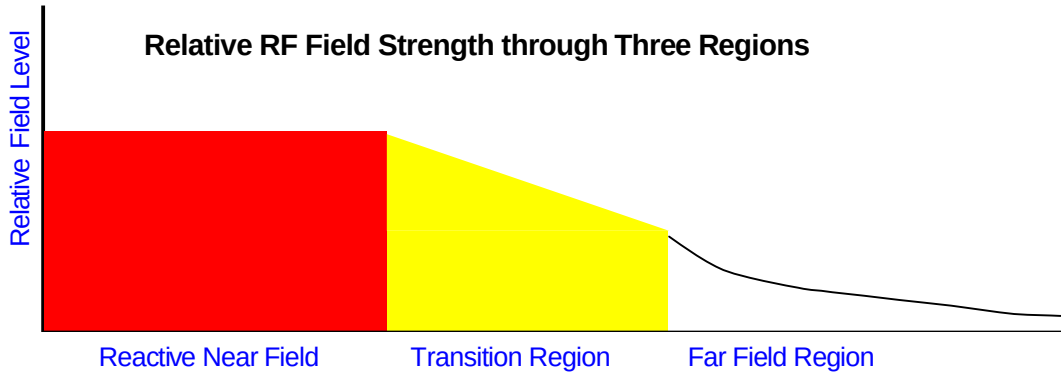
The radiated power from reflector antennas such as the Universal City studio satellite-uplink antennas is well understood and relatively simple to calculate. Calculations of RF field levels from reflector antennas are in many ways more accurate, albeit more conservative, than measurements. There are three regions with distinct characteristics:

1. **Reactive Near Field.** The reactive near field is the area in which the potential exists for maintenance personnel, due to unforeseen or deliberate action, to be exposed to excessive RF fields. The radiated energy in the reactive near field region takes the approximate shape of a cylinder with a diameter equal to that of the antenna. For the purpose of analyzing RF radiation hazards, it is assumed that the on-axis energy is at its maximum in this region and does not begin to diminish in intensity until the beginning of the transition region. The energy level throughout this region is highly variable and can be as high as 6 dB, or four times higher than the calculated average at any point. The amount of transmitted energy is proportionate to the efficiency of the antenna reflector. Reflector efficiency is typically 50 to 80 percent.

1. **Radiating Near Field or Transition Region.** The radiating near field, or transition region, is located between the reactive near field and the far field regions. The energy level in this region drops off linearly with distance.

2. **Far Field.** The far field region begins once the beam is fully formed. The electric and magnetic fields are uniform and 90 degrees out of phase in this region. Field intensity in the far field drops off inversely in proportion

to the square of the distance from the antenna as the energy spreads out. This is often referred to as the inverse square law.



The assumed power density anywhere in the reactive near field (S_{RNF}) is calculated by dividing the power into the antenna (P) by the area [3] (A) and multiplying by both the reflector efficiency (E_{Ref}) and a factor of 4.

$$S_{RNF} = P/A \times 4 E_{Ref}$$

This is the formula approved by the FCC for use in calculating RF field levels in the reactive near field of reflector antennas.

The distance that the reactive near field extends from the antenna (L_{NF}) increases in direct proportion both to the square of the antenna diameter and to the frequency.

$$L_{NF} = D^2/4\lambda$$

The distance to the far field region (L_{FF}) is proportionate to the square of the antenna diameter and the frequency.

$$L_{FF} = 0.6D^2/\lambda$$

The RF field strength in the far field region drops off inversely with the square of the distance (R) from the antenna and increases proportionately with the gain (G) of the antenna.

$$S_{FF} = GP/4\lambda R^2$$

Practical Application of the Formulas

The first formula is the most important for the Universal City studios. It is used to predict the maximum RF field strength in the reactive near field.

This formula is conservative because it calculates the maximum field density, which is four times higher than the average since it is impossible to predict where the peak field areas may occur. However, the spatially averaged RF field level is normally closer to the calculated average field strength for areas outside the

[3] Area (A) is calculated based on the two-dimensional area of a circle equal in diameter to the antenna.

support struts. In addition, although the formula calculates the worst-case fields, which are 6 dB above the average field, the energy in these reflector antennas is lower near the perimeter. The highest field intensities occur just outside the center. The fields in the center are not as high due to the feed horn and subreflector. RF field levels between the reflector and the subreflector are much higher. See *Feed Horn Calculations* on the next page.

Table 2 is a summary of the calculations for the proposed Universal City property satellite-transmission antennas described in this report. Calculations are initially made in units of W/m² and then converted to mW/cm² (10 W/m² = 1 mW/cm²). Calculated values are shown using both average and maximum field strength within the beam of each antenna. It shows the average and peak power density in the reactive near field of the two antennas. The calculations assume a reflector efficiency of 75 percent. The actual efficiency is probably lower, thus, the calculations are conservative. NBC engineering personnel have stated that the maximum power level into the feed horn of the larger antennas does not exceed 200 Watts, which is the value used in the analysis.

Table 2. Main Beam Calculations, Reactive Near Field

Dia.	Area (m²)	Input Power (Watts)	Average Field Strength (mW/cm²)		Peak Field Strength (mW/cm²)	
2.4 m	4.52	125	2.07	214%	8.29	829%
8.0 m	50.27	200	0.298	30%	1.19	119%
9.0 m	63.62	200	0.236	24%	0.94	94%

The "Percent" figures in Table 2 are the percentage of the MPE limit for General Population/Uncontrolled exposure.

Feed Horn Calculations

The RF field levels between the feed horn and the reflector are extremely high. In this area, the peak fields are up to two times (3 dB) higher than the average. The average field levels are calculated by dividing the input power by the surface area of the feed horn. The feed horns of the larger antennas are estimated to be about 20 centimeters in diameter and the feed horn of the smallest antenna is estimated to be about 10 centimeters in diameter. Assuming diameters of 20 centimeters and 10 centimeters, the surface areas of the feed horns are 314 cm² and 78.5 cm² respectively. Table 3 shows the calculated average and peak RF field levels near the feed horns of the two antennas shown in Table 2.

Table 3. Feed Horn Calculations

Antenna	Feed Horn Area	Average Field Strength	Peak Field Strength
2.4 m	78.5 cm²	1.59 W/cm²	3.18 W/cm²
8.0/9.0 m	314 cm²	0.637 W/cm²	1.27 W/cm²

Because the energy near the feed horn is concentrated into a very small area, the field levels, or energy density, in this region are extremely high, which is why the table shows values in units of W/cm² rather than mW/cm². A field level of 1.59 W/cm² is 318 times higher than the MPE limit for Occupational/ Controlled exposure and represents a very significant eye hazard should anyone get their eyes close to the feed horn with the system powered on.

The risk of exposure to the extreme levels of energy close to the feed horn is limited to maintenance personnel working on the antenna. Appropriate lockout, tagout procedures are required to work near the feed horn. See *Section 4: Risks and Recommendations* for more details concerning maintenance personnel working near the feed horns of antennas.

Section
2

Analysis of Wireless Services Antennas

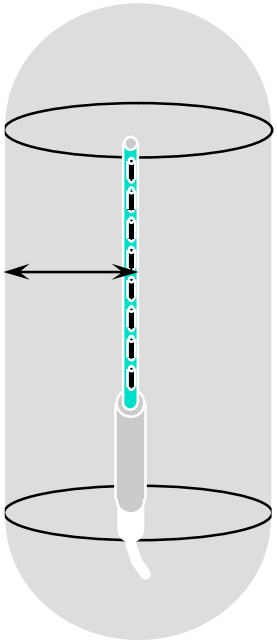
The Only Concern Is for Personnel at the Same Elevation

Overview

Antennas used for a broad variety of wireless services—cellular; PCS; paging; fire, police, and emergency services; and two-way radio—are all very similar. The antennas are almost all what are known as collinear dipole arrays and they are either omnidirectional or they are directional. Directional antennas are commonly referred to as sector antennas. None of these antennas has significant amounts of energy directed above or below the antenna. The major RF safety hazard is for people who ascend to the same elevation as any of these antennas.

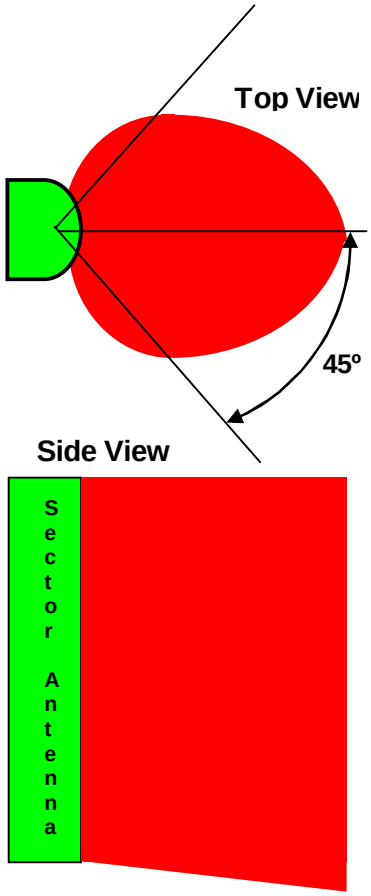
Omnidirectional Antennas

If the antenna is an omnidirectional type, the energy is equally radiated in 360 degrees in azimuth. Only about 10 percent of the energy is directed upward or downward. A simple calculation of the RF field level in front of one of these antennas assumes that the energy is equally distributed about the curved walls of a cylinder equal in radius to the distance between the point of interest and the antenna, thus ignoring the limited amount of energy that is radiated upward and downward. Most sophisticated computer modeling programs, such as the Roofview® program used later in this section of the report, correctly model the antennas with some of the energy radiated upward and downward. Note that these calculations do not consider the gain of the antenna, since that is not relative when one is very close to the antenna (typically less than 10 to 15 feet).



Directional Antennas

The most common sector antennas are designed to cover either 120 degrees or 90 degrees in azimuth (from side to side). The antennas used on towers are almost always 120-degree models. The antennas used on buildings are mostly 90-degree designs since the antennas are most often located on the four sides of a building. Sector antennas with 60-degree and 30-degree beams are sometimes used in urban areas.



The diagram at the right depicts the pattern of the RF energy from a typical 90-degree sector antenna. The RF field strength, or energy level, at the outer edge of the red zone shown in the top view is approximately equal. Note that there is no energy to the sides or the rear of the antenna.

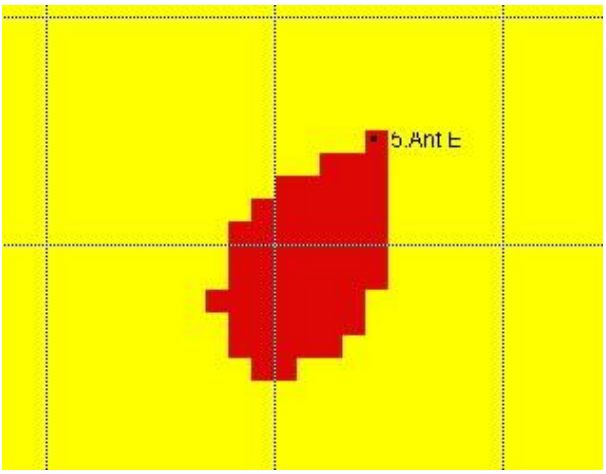
The actual coverage angle of a sector antenna is wider than its nomenclature would suggest. The common 120-degree and 90-degree designs refer to the angles where the energy level is half the power level that is found directly in front of the antenna. These are referred to as the half-power beam widths. The energy continues to drop off as the angle increases from 0 degrees (straight ahead). Virtually all the energy is in the forward hemisphere. There is also very little energy aimed downward. The maximum electrical "down-tilt" angle is typically 4 degrees. It is common to see these antennas mounted at a 3- to 4-degree mechanical downward tilt. In a few cases, they may be tilted up to 10 degrees off of vertical.

Although it is not possible to distinguish between 90-degree and 120-degree designs by looking at the antennas, it is not important for RF safety purposes since there is no significant energy outside of the forward hemisphere for either design.

The energy level in the direction of propagation continues to decrease as the distance from the antenna increases. The energy falls off linearly with distance (i.e. half the level at twice the distance) close to the antenna but after about 10 to 15 feet, the energy level drops off inversely as the square of the distance. For example, the RF field strength 30 feet from the antenna is one-fourth of the field strength at 15 feet from the antenna. At 60 feet, the energy level is one-sixteenth of the level at 15 feet. The elevation, or side view, of the antenna shows that there is very little energy directed downward. The energy from these sector antennas is directed away from a tower or building at a very slight downward angle to cover as much area as possible.

Analysis of Collinear Dipole Array Antennas

The predictions of RF field levels can be made using special software specifically designed for this task. Roofview® software was developed by Richard Tell of Richard Tell Associates. Roofview® is a software analysis tool for evaluating RF field levels on rooftops and at ground level at telecommunications sites that is produced by vertical collinear antennas of the type commonly used in cellular, PCS, paging, ESMR, and conventional two-way radio communications systems. The program is structured as a spreadsheet workbook that is compatible with Microsoft Excel. Roofview® has the ability to create color graphic representations of the composite RF fields at a rooftop site or at ground level produced by the simultaneous operation of many antennas located at different points and heights on the roof or on a tower. The resulting graphical representations provide a way of visually viewing the complexities of the resulting near-field RF environment. A data table within Roofview® maintains information about each antenna at a site that is needed for calculating the RF field levels.



Near-field RF levels are computed from selected antennas by applying a cylindrical model that takes into account the antenna's aperture height, mounting height above the ground or roof, azimuth beam width (for directional or sector antennas), and the location of the antenna on a roof or relative to the center line of the tower. The resulting spatially averaged power densities are expressed as a percentage of a user selectable exposure limit that is frequency dependent. In this report, all references are to the FCC's MPE limits for General Population/Uncontrolled exposure unless otherwise noted. The calculations and graphical representations are based on the composite RF field density in one-square-foot pixels.

Extensive calculations using the modeling software and extensive measurements made on rooftops confirm that there are no RF safety concerns with wireless antennas unless some part of an individual's body is at the same elevation as some part of the antenna. If the bottom of the antenna is as little as two feet above a person's head, the spatially averaged exposure will be below the FCC MPE limits for public exposure for virtually all applications even when the person is very close to the antenna.

In contrast, under worst-case conditions, a person might have to be as much as 50 feet away from the front of a directional wireless antenna if they are at the same elevation before the RF field level goes below the FCC MPE limit for public exposure.

Section
3

Standards and Regulations

Calculations Compared to FCC Regulations

Federal Communications Commission (FCC) Regulations

The FCC updated its RF safety regulations in 1997. The regulations require that all transmitting sites in the United States must meet all aspects of these regulations as of September 1, 2000.

The FCC Regulations are based on setting limits for human exposure. The FCC limits are similar to, but not identical, the limits of several other major standards. There are two sets of exposure limits:

- Occupational/Controlled
- General Population/Uncontrolled

These are Maximum Permissible Exposure (MPE) limits averaged over the body and averaged over time. The Occupational/Controlled limits are five times higher than the General Population/Uncontrolled limits at all frequencies above 3 MHz. The averaging period for Occupational/Controlled Environments is six minutes for exposure to frequencies below 15 GHz. The averaging time decreases as the frequency increases from 15 GHz to 300 GHz. The FCC does not allow time averaging for General Population/Uncontrolled exposure. The MPE limits are the same for both the electric field and the magnetic field.

The FCC provides definitions for the two types of exposure and attempts to define when they apply. A simplified view, endorsed by the Occupational Safety and Health Administration (OSHA), is that the more restrictive General Population/ Uncontrolled limits apply unless:

- The organization is operating under a written RF safety program.
- The individuals that may be exposed to levels above the General Population/Uncontrolled limits have received RF safety training.

A current Notice of Proposed Rulemaking is aimed at further defining when an organization is allowed to use the higher MPE limits for Occupational/Controlled exposure. The terms *fully aware* and *exercise control* are referred to in the current FCC Regulations when defining the requirements for establishing an Occupational/Controlled environment. The Notice further defines these two important terms.

The phrase *fully aware* refers to workers who:

- Have received both written and verbal information regarding RF radiation.
- Have received training that includes how to control or mitigate RF radiation exposure.

The phrase *exercise control* refers to workers who:

- Understand how to use administrative controls to reduce their exposure level. Administrative controls include time averaging.
- Understand how to use engineering controls to reduce their exposure level. Engineering controls include Personal Protective Equipment (PPE), specifically RF personal monitors and RF protective clothing.

The FCC's MPE limits for the two environments are shown in the tables below. Limits are spatially averaged over the whole body. The Occupational/Controlled limits are time averaged.

Table 1. Occupational/Controlled Exposure

Frequency (MHz)	Power Density (S) (mW/cm^2)
0.03—3	100
3—30	$900/f^2$
30—300	1.0
300—1,500	f/300
1,500—100,000	5.0

Table 2. General Population/Uncontrolled Exposure

Frequency (MHz)	Power Density (S) (mW/cm^2)
0.03—1.34	100
1.34—30	$180/f^2$
30—300	0.2
300—1,500	f/1500
1,500—100,000	1.0

Occupational Safety and Health Administration (OSHA) Regulations

The OSHA standard is outdated and not enforced by OSHA. It is based on the first American National Standards Institute (ANSI) standard developed in the 1960s. This is a single-tier standard that suggests limiting exposure to 10.0 mW/cm² at all frequencies. The FCC limits are far more restrictive. Under the "General Duty" clause of its regulations, OSHA has been using modern, "consensus" standards, such as the FCC's, as a model for enforcement. OSHA defined its position relative to the FCC Regulations in a reply to an official request from the Personal Communications Industry Association (PCIA) in October 1998. In essence, OSHA went on record stating that while it was not relinquishing its role as the agency responsible for worker health, organizations that satisfy FCC requirements would also satisfy OSHA requirements. Refer to *Appendix B: OSHA/PCIA Correspondence.*

This may be the official position of OSHA, but the evaluator could not identify the corresponding compliance directive. Therefore, local OSHA offices may not be aware of it. For this reason, only FCC MPE limits are considered in this RF Safety Report.

MPE Limits for NBC Universal

The FCC allows workers who are ***fully aware*** and ***able to exercise control*** over their exposure to be exposed to RF field levels up to the MPE limit for Occupational/Controlled exposure.

All other personnel should not be allowed to be exposed to RF field levels greater than the MPE limit for General Population/Uncontrolled exposure. The General Population/Uncontrolled exposure limit for all planned uplink systems in Universal City is 1.0 mW/cm², as shown in the second chart on the previous page. This exposure limit is one-fifth of the limit for Occupational/Controlled exposure above 3 MHz. There are no known emitters of significant RF energy at the facility other than the proposed satellite-uplink antennas discussed in this report.

Table 1: FCC MPE Limits for Universal City Studios

Type of Environment	Occupational MPE Limit	General Population MPE Limit
Microwave band: all satellite-transmission equipment	5.0 mW/cm²	1.0 mW/cm²

The exposure limits for other frequencies, such as those used for wireless services, are shown in Table 2 on the previous page.

Section
4

Risks and Recommendations

Low-Risk Environment Requires Caution during Maintenance

Risks

There are always risks associated with high-power RF transmission equipment. The goal is always to understand and manage operations so that risks are minimized. The risks from the satellite-uplink systems are quite low. There are two, albeit unlikely, ways in which an overexposure situation could occur that would present eye hazards. These situations are:

- **A waveguide leak.**
- **Exposure to high RF levels near the feed horn.** Although this represents an unlikely scenario, an extremely dangerous exposure situation could occur should a person attempt to work near the feed horn of the antenna while the system was transmitting. This situation has occurred at several satellite-uplink facilities.

In addition, there is a potential FCC compliance problem with the 2.4-meter-diameter antenna. The calculated RF field levels are too high to allow anyone other than trained RF workers to get within the beam of the antenna.

Recommendations

Overview

The recommendations are designed to address the exposure potentials described above and to reduce liability. The recommendations are to

- **Maintain a safe distance from waveguide.** Maintain an absolute minimum of 1 foot of separation between your eyes and all waveguide connections, waveguide components, and flexible waveguide. Limit exposure to less than one minute for areas from 1 foot to 3 feet of waveguide connections, waveguide components, and flexible waveguide.

- **Develop and use a lockout, tagout procedure.** Develop and use a simple lockout, tagout (LOTO) procedure to ensure that the high-power amplifiers (HPAs) cannot possibly be energized while anyone is working on one of the antennas.

- **Restrict Access to the Beam of the 2.4-Meter-Diameter Antenna.** People should not be allowed to be exposed to the energy from this antenna unless they are trained workers.

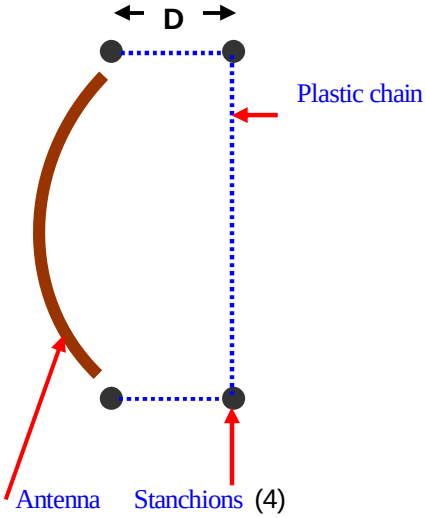
2.4-Meter-Diameter Antenna Access Restriction and Mounting Options

Restricting Access

If the 2.4-meter-diameter antenna is installed so that the bottom lip of the antenna is less than 7 feet above ground, a barrier must be installed to prevent access to the area directly in front of the antenna. It is recommended that a chain and stanchion barrier be added in front of the antenna. RF NOTICE signs should be hung from the chains. The photo to the right shows such an installation.

The minimum width of the area is equal to the diameter of the antenna, 2.4 meters, or about 8 feet. Ideally, the width of the restricted access area should be 10 feet wide to ensure that nobody can get within the beam by leaning over the chain. The distance in front of the antenna can be determined using the minimum elevation angle and the height of the lip of the antenna above ground. The objective is to have the beam of the antenna a minimum of 7 feet above ground level at the chain.

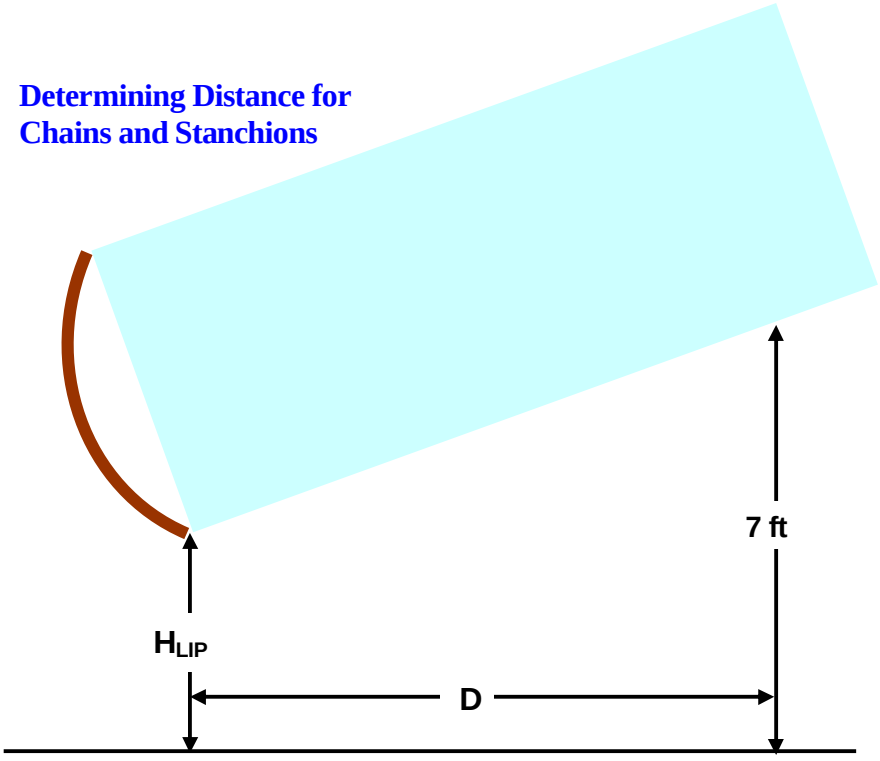
The only area where a person can be exposed to the antenna beam is inside the small area defined by the chains, stanchions, and signs. Only trained RF workers should be allowed inside this area.



Plan View of Chains and Stanchions

Hang an RF NOTICE sign on the chain on each side of the enclosure.

Determining Distance for Chains and Stanchions



Installation on Platform

An alternate way to prevent people from getting into the beam of the 2.4-meter-diameter antenna is to mount it higher above ground. The photo on the right shows a 6-meter-diameter antenna mounted on a platform. A chain and sign are used on the platform stairs.

Lockout, Tagout Procedures Are Required when Working near Feed Horns

The risk of exposure to the extreme levels of energy close to the feed horn is limited to maintenance personnel working on the antenna. Appropriate lockout, tagout procedures are required to work near the feed horn.

This is a photo of a worker servicing an 11-meter antenna at another satellite-uplink facility. The worker is positioned directly between the feed horn and the subreflector. The RF field levels in this area are extremely dangerous when the antenna system is energized. Lockout, tagout procedures and RF personal monitors should both be worn when working in this area.

Feed horn

Subreflector

Appendices

Appendix A: Consultant Qualifications

Richard Strickland founded RF Safety Solutions in 2001 after ten years as Director of Business Development for Narda Safety Test Solutions, the world's leading supplier of RF safety measurement and monitoring products. As director of the RF safety business at Narda, Mr. Strickland determined which products were developed and their performance characteristics. He frequently functioned as program manager, as he did with the Nardalert XT RF personal monitor. He initiated the development of RF radiation training courses at Narda and has conducted courses ranging from basic employee awareness seminars to in-depth application specific courses. Audiences have included environmental health and safety professionals, engineers, technicians, attorneys, communications industry professional consulting engineers (PEs), and senior managers of major corporations, government organizations, and professional groups. Mr. Strickland has taught approximately two hundred public and private seminars on RF radiation safety. In-house course clients include the National Association of Broadcasters, National Public Radio, Society of Broadcast Engineers, AT&T Mobility, Sony, Motorola, NYNEX Mobile, ABC, CapRock, the U.S. Army, Bell Atlantic Mobile, Ameritech, Primeco, NORTEL, Texas Instruments, and Northrup-Grumman. He has been both a featured speaker and a member of the radio frequency radiation panel at the National Association of Broadcasters, the Radio Club of America, and the International Wireless Conference and Exposition. He is a member of IEEE SC 28 P1466. The project scope of this group is "Preparation of a guidance document for the development of RF safety programs." Mr. Strickland is the author of numerous articles on RF safety practices and measurement issues.

Recent Customers

Richard Strickland provides advice regarding RF radiation safety to several major companies. Services include RF surveys and RF safety reports, development of RF safety programs, and RF safety training.

Current clients include:

- ABC Radio
- ABC Television
- British Aerospace
- Cornell University
- ESPN
- Lockheed Martin Corporation
- NBC
- Raytheon Corporation
- Society of Broadcast Engineers
- SpectraSite Communications
- Trinity Broadcasting
- U. S. Coast Guard

Education

- MBA, University of Massachusetts, 1980
- BA Physics, Bridgewater College, 1972
- Advanced (radar & IFF) and basic electronics courses, U.S. Coast Guard

Presentations & Publications

- More than 35 articles published in technical publications on RF safety, high-power amplifiers, and radomes
- Organized and conducted more than 200 public and in-house training courses
- Featured speaker for numerous professional organizations including NATO, National Public Radio, National Association of Broadcasters, Society of Broadcast Engineers, and Radio Club of America

Professional Memberships

- Member of the International Electrotechnical Commission (IEC) Technical Advisory Group (TAG) 106: Methods for the Assessment of Electromagnetic Fields Associated with Human Exposure
- Member of the IEEE CS 28 P1466, guidance document for the development of RF safety programs
- Member of the Association of Federal Communications Consulting Engineers (AFCCE)
- Member of the IEEE and IEEE Antennas and Propagation Society

Awards

- Winner of the R & D 100 Award for the Nardalert XT RF Personal Monitor. Mr. Strickland was the originator of this product. He functioned as project manager and decided on all of its features and design details. The R & D 100 Awards are given annually to the top 100 scientific and technological achievements in the world. They are frequently referred to as "the Nobel Prizes of Applied Research."

Appendix B: OSHA/PCIA Correspondence

Letter from Personal Communications Industry Association (PCIA) to Department of Labor Occupational Safety and Health Administration (OSHA), September 3, 1998

The Personal Communications Industry Association (PCIA) wrote this letter to obtain written confirmation from OSHA concerning that organization's position relative to the FCC's 1997 RF Safety Regulations. The FCC, OSHA, and PCIA met a few days prior to the writing of this letter to try to get a definitive position statement from OSHA. Up until this point, OSHA had been giving out often confusing and conflicting information on what it required for compliance with RF safety regulations, especially within the communications industry.

Letter from Occupational Safety and Health Administration (OSHA) to Personal Communications Industry Association, October 5, 1998

This is OSHA's official response to the PCIA letter dated September 3, 1998. While maintaining its legal rights, the letter in essence clearly states that it will accept full compliance with the FCC's 1997 RF Safety Regulations as fully satisfying OSHA in this area. The letter states "For purposes of construction or maintenance activities, OSHA will consider employers who are in compliance with the FCC standards as they relate to employee RF exposure to be in compliance with OSHA requirements."

PCIA Personal Communications Industry Association

September 3, 1998

Mr. Charles N. Jeffress
Assistant Secretary of Labor
Occupational Safety and Health Administration
Room S2315
200 Constitution Avenue
Washington, D.C. 20210

Dear Mr. Jeffress:

I write on behalf of the Personal Communications Industry Association ("PCIA") to request confirmation of the position recently conveyed verbally to certain PCIA members in a recent meeting with staff of the Occupational Safety and Health Administration ("OSHA") regarding compliance with radiofrequency ("RF") radiation criteria.

As you know, each of OSHA and the Federal Communications Commission ("FCC") has certain responsibility for assuring compliance with federal RF regulations. The FCC has already promulgated regulations pursuant to ET Docket 93-62. Recently, certain of our members were advised that, while OSHA has not yet developed regulations of its own regarding RF criteria, and while it may promulgate regulations in the future, it has no current criteria to apply. In view of this vacuum, query was made as to whether OSHA would view compliance with FCC regulations as being sufficient to constitute effective compliance with OSHA requirements.

As I understand it, non-binding response was provided by OSHA staff to the effect that, at least in so far as compliance with OSHA regulations governing RF exposure involving construction of telecommunication facilities is concerned, compliance with FCC RF regulations would currently be viewed as constituting compliance with OSHA requirements. The staff was careful to make clear that OSHA still may promulgate alternative criteria in the future, that this position involves only construction (i.e., construction of new sites and modification including painting of existing sites) and

• 500 Montgomery Street • Suite 700 • Alexandria, VA 22314-1561 •
• Tel: 703-739-0300 • Fax: 703-836-1608 • Web Address: http://www.pcia.com •

that compliance with RF criteria would not in and of itself obviate the need for compliance with non-RF regulation governing other matters. Needless to say, the staff's informal comment was very useful and very well received by PCIA members.

PCIA will be hosting its annual convention during the week of September 21, 1998. At that time, we will have the attention of a considerable portion of the wireless telecommunication industry. We very much want to be able to advise them of OSHA's position as discussed above, but believe that it would be much more meaningful if conveyed via letter to me under your signature. We also believe that, by setting forth your views on compliance in this matter, you would further compliance by the telecommunication industry with both FCC established criteria and with the requirements that are effectively being applied by OSHA. Accordingly, we respectfully ask that you write to confirm our understanding as set forth above.

In the event that you should have any questions with respect to this matter, please feel free to contact me directly. Permit me to also thank you in advance for your efforts on this very important matter.

Very truly yours,

Jay Kitchen/m.m.

Jay Kitchen
Executive Director
Personal Communications Industry Association

cc: D. Morgan ✓

U.S. Department of Labor

Occupational Safety and Health Administration
Washington, D.C. 20210

Reply to the Attention of:

OCT - 5 1998

Mr. Jay Kitchen
Executive Director
Personal Communications Industry Association
500 Montgomery Street
Suite 700
Alexandria, VA 22314-1561

Dear Mr. Kitchen:

This is in response to your letter of September 3, 1998, from Personal Communications Industry Association (PCIA) members regarding compliance with radiofrequency ("RF") radiation criteria. I understand that your representatives, as well as a representative from the Federal Communications Commission (FCC) recently met to discuss the subject with staff members from OSHA's Directorates of Compliance and Construction and were telephonically connected with Bob Curtis of our Technical Support Directorate in Salt Lake City. You ask in your letter for written verification that compliance with FCC regulations regarding RF be viewed as constituting compliance with OSHA requirements.

OSHA understands that FCC does not dispute OSHA's exercise of jurisdiction over employers with employees who may be exposed to RF. OSHA does have limited standards which apply both to general industry and to construction, covering employee exposure to non-ionizing radiation (see 29 CFR 1910 97 and 1910.268(p) for general industry and 29 CFR 1926.54 for construction). However, these standards are over thirty years old and neither reflect current technology in the communications industry nor provide the level of employee protection from exposure to RF currently promulgated by the FCC. It has been and continues to be OSHA's policy to recognize state and federal standards which are more protective than current OSHA regulations as constituting compliance with our requirements. For purposes of construction or maintenance activities, OSHA will consider employers who are in compliance with the FCC standards as they relate to employee RF exposure to be in compliance with OSHA requirements. If an employer is not in compliance with the FCC standards, OSHA will enforce current OSHA standards but may also enforce Section 5 (a)(1) of the OSH Act to the extent that the FCC standards address serious, recognized hazards not covered under OSHA's requirements.

As discussed in the meeting with PCIA representatives and reiterated in your letter, although not on our current regulatory agenda, OSHA may promulgate alternative criteria in the future In the meantime, the enforcement policy stated in the preceding paragraph covers construction activities (i.e., tower/site construction, major equipment installation and/or replacement, painting operations, and other such construction activities) as well as routine tower maintenance activities. Finally, employers will continue to be responsible for complying with all other OSHA standards on their worksites.

We have accepted the invitation from your representatives to participate in a panel discussing RF compliance at your annual convention during the week of September 21, 1998. Bob Curtis from our Salt Lake City Technical Laboratory represented OSHA on that panel and was available for questions from the attendees. We trust that this letter of confirmation of our position on RF compliance and Bob's expertise on the subject addressed your concerns and those of your constituents and members. If you have questions regarding this letter, please contact Berrien Zettler of the Directorate of Construction on 202-219-8644.

Sincerely,

Russell B. Swanson, Director
Directorate of Construction

Appendix P

Employment, Housing, and Population

Appendix P-1

Employment, Housing, and Population Technical Report

HR&A ADVISORS, INC.
Economic Development, Real Estate Advisory & Public Policy Consultants

Appendix P

AN ASSESSMENT OF THE EMPLOYMENT, HOUSING AND POPULATION IMPACTS OF THE NBC UNIVERSAL EVOLUTION PLAN

A Technical Appendix to the
Draft Environmental Impact Report

Prepared for:
The Department of City Planning
City of Los Angeles

March 2010

2800 28TH STREET, SUITE 325, SANTA MONICA, CALIFORNIA 90405 ▪ TEL: 310.581.0900 ▪ FAX: 310.581.0910

LOS ANGELES NEW YORK

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I. EXECUTIVE SUMMARY

A. OVERVIEW

This Report presents an assessment of the economic, employment, housing and population impacts of the NBC Universal Evolution Plan, a development program that meets the future needs of the existing businesses located within the Universal City area of the City of Los Angeles ("City") and County of Los Angeles ("County"), as well as the establishment of a new residential community that contributes to meeting the future housing needs of the southeastern San Fernando Valley ("Project"). In overview, the Project is a mixed-use development consisting of approximately 2.01 million net new square feet of various types of new commercial uses, including 500 hotel rooms and related hotel facilities, plus 2,937 multi-family residential units. The Project also includes the demolition of approximately 638,048 square feet of existing on-site uses. The Project proposes new development across all of the major types of land uses that occur on and adjacent to, the Project property — e.g., CityWalk, theme park, studio, retail, office and hotel uses — in addition to the introduction of residential uses. The Project Applicant is Universal City Studios LLLP, L.P.

This assessment is intended to provide data and analysis for use in preparing an Environmental Impact Report (EIR) on the Project, pursuant to the California Environmental Quality Act (CEQA). This Report was prepared by HR&A Advisors, Inc., an economic development, real estate advisory and public policy consultant.

Based on the criteria set forth in the City of Los Angeles 2006 CEQA Thresholds Guide, the Project would have a significant impact on employment if:

1. It would cause growth (i.e., new employment, housing or population), or accelerates development in an undeveloped area, that exceeds projected/planned levels for the year of Project buildout; or

2. It is not compatible with adopted local and regional employment, housing or population growth policies, including jobs/housing balance, as set forth in the County's General Plan, the City's General Plan and the Southern California Association of Government's (SCAG) 1996 Regional Comprehensive Plan and Guide.

For housing and population, the degree of Project impact "significance" is based on the following considerations:

1. The degree to which the Project would cause growth or accelerate development in an undeveloped area that exceeds projected/planned levels for the year of projected occupancy/buildout, and that would result in an adverse physical change in the environment.

2. Whether the Project would introduce unplanned infrastructure that was not previously evaluated in the adopted Community Plan or General Plan; and

3. The extent to which growth would occur without implementation of the Project.

Accordingly, the Project is evaluated in terms of consistency with applicable City, County and SCAG forecasts and policies concerning employment, housing and population growth.

The analysis of potential Project impacts is presented in terms of two principal geographic zones around the Project Site. These zones are:

- ***The City of Los Angeles Subregion.*** This is the SCAG-defined area relevant to the Project for regional planning purposes. It includes the City of Los Angeles, the City of San Fernando, several small unincorporated County "islands" and other small unincorporated areas (e.g., property that is owned by the federal or state government).

- ***The Southeast San Fernando Valley.*** This subarea of the City of Los Angeles is included for context, but has no official status as a planning area for SCAG or the City or County. It is bordered on the west roughly by the San Diego Freeway (I-405), on the south by Mulholland Drive, on the north by the Metrolink right-of-way that runs from about Roscoe Boulevard southeast to Vanowen Street, and on the east by the City of Los Angeles border with the City of Burbank. This area corresponds to the City Community Plan areas of Sherman Oaks-Studio City-Toluca Lake-Cahuenga Pass, Van Nuys-North Sherman Oaks and North Hollywood-Valley Village. Most of the Project Site is an unincorporated area that is not included in the Sherman Oaks-Studio City-Toluca Lake-Cahuenga Pass Community Plan. As a result, use of that Community Plan area alone in this analysis is inappropriate.

Comparisons between the Project and the entire County and City of Los Angeles, and the six-county southern California region, are also included when relevant. In addition, the Project description includes the possibility that the proposed new residential area of the Project Site, called the Mixed-Use Residential Area, and certain other small areas of the Project Site with non-residential uses, may be annexed from the County of Los Angeles into the City of Los Angeles. The implications of annexation or no annexation are also addressed in this analysis.

The analysis in this Report relies on a variety of socioeconomic data derived from secondary sources, including the U.S. Bureau of the Census, some of which has been aggregated at the Community Plan level of geography by the City of Los Angeles Department of City Planning. It also relies on regional growth forecasts prepared about every three years by SCAG. Additional data sources are cited throughout the Report.

B. ECONOMIC AND EMPLOYMENT SETTING AND PROJECT IMPACTS

The Regional and Citywide Market Context

By 2007 the southern California economy had recovered nearly all of the jobs lost during the early 1990s, when a combination of defense industry restructuring and recession, coupled with natural disasters (e.g., 1994 Northridge earthquake) and manmade problems (1992 civil disturbance in Los Angeles) resulted in a loss of over 500,000 jobs. Between 2000 and 2007, except for temporary losses due to the effects on the economy of the September 11, 2001 terrorist attacks on New York and Washington, D.C., the region's employment and economic growth outpaced both the state and national economies. In 2007, the region's 7.4 million total jobs accounted for about half of California's employment. Its $814 billion gross regional product ranked as the 16th largest in the world – between Mexico and the Netherlands. The four pillars of the region's current economy, which is now much more diversified than in the past, are: (1) one of the nation's largest international trade complexes; (2) the nation's largest entertainment and tourism sector; (3) the nation's largest diversified manufacturing sector; and (4) growing participation in professional services, biotechnology and design markets. The national recession that officially began in December 2007 has cost the State 955,200 jobs as of August 2009, including 585,818 jobs in southern California.

Tourism and entertainment accounted for 371,200 total jobs in the region in 2007, including about 157,800 jobs in the motion picture, video and sound recording sector; about 129,400 jobs in the arts, entertainment and recreation sector; and about 84,000 jobs in hotels and other components of the "accommodations" sector. The motion picture, television and tourism sectors are particularly important because of their high "multiplier" effect (i.e., depends on jobs and services from a wide range of other sectors).

Los Angeles County, which bore the brunt of the State's economic downturn in the early 1990s, regained nearly all of the jobs lost during that period by 2007. The County's average annual unemployment rate in 2007 was 5.0 percent, below the rate for the State and the Inland Empire counties that were more exposed to the downturn in the housing market up to that point in

time. As of August 2009, after nearly two years of a major national recession, the County's unemployment rate reached a staggering 12.6 percent.

Jobs in the film and television production sectors totaled 160,000, or about four percent of non-agricultural employment in the County in 2007. This represents a gain of 37,100 jobs since 1990, at the same time that aerospace manufacturing lost 91,600 jobs. There are approximately 13,800 jobs located at Universal City today, in a variety of entertainment and tourism industry businesses.

Project Economic and Employment Impacts

The Project consists of the development of a new residential community comprised of 2,937 dwelling units, plus approximately 2.01 million net new square feet for retail, entertainment, film and television studio production facilities, studio-related and other office uses and a child care center, including 500 hotel rooms and related hotel facilities.

The Project's net new non-residential floor area is estimated to accommodate 5,193 direct jobs. Another 1,718 jobs will be directly associated with spending in the Project vicinity by households in the Project's 2,937 new dwelling units. With implementation of the Project about 66 percent of the net new jobs will be associated with film, television and video related production and management activities. The Project's retail (including neighborhood-serving retail within the Mixed-Use Residential Area), child care and theme park jobs represent one-quarter of net new jobs, and the new hotel jobs will represent about eight percent of the Project's total number of net new on-site jobs.

In scale terms, the Project's direct total of 6,911 jobs will account for 3.3 percent of the jobs in the Southeast San Fernando Valley in 2030, and 23.7 percent of employment growth projected for that area by SCAG between 2008 and 2030. The Project also represents about one-quarter of one percent (0.3%) of SCAG's employment forecast for the City of Los Angeles Subregion in 2030, and about 2.2 percent of employment growth between 2008 and 2030. Inasmuch as the Project does not exceed forecasted employment growth in the SCAG subregion, it is consistent with the regional growth forecast.

In addition to direct operational employment, the Project is projected to account for about 16,559 part-time and full-time construction jobs in the Los Angeles County economy, and a total of about 31,400 total jobs related to Project construction, including the "multiplier effect" on direct construction employment. Once Project construction is completed, total jobs (i.e., direct and "multiplier effect" jobs) resulting from development of new non-residential space will be 9,481; and total jobs associated with new household spending are projected at 2,635. Total economic output impacts in the Los Angeles County economy from constructing the Project are

estimated at $5.24 billion (in 2007 dollars). Total economic output from annual operation of non-residential space plus new household spending is projected to be $1.93 billion. Inasmuch as these employment and economic impacts are measured at the scale of the Los Angeles County economy, they are the same under the annexation and no-annexation scenarios.

The Project would help anchor the state's and region's entertainment and tourism sector in Los Angeles County for the foreseeable future. It would be consistent with all applicable growth forecasts and regional and local economic development and employment policies. Therefore, the Project's economic and employment effects are beneficial and not adverse within the meaning of CEQA, and no mitigation is required or recommended. Project employment plus a proxy measure of employment for "related projects" represent approximately 14.3 percent of forecasted employment in the City of Los Angeles Subregion in 2030. The Project's incremental employment effect is not "cumulatively considerable" within the meaning of CEQA, and its cumulative employment impact is therefore less than significant.

C. HOUSING SETTING AND PROJECT IMPACTS

The Regional and Citywide Housing Market Context

There were 155,647 dwelling units in the Southeast San Fernando Valley in 2006, according to Department of City Planning estimates, which accounted for about 11 percent of the Citywide housing stock and five percent of the Countywide housing stock. Compared with the City and County overall, the housing stock in the Southeast San Fernando Valley has a lower vacancy rate and a smaller proportion of units in detached single-family units. The City's housing stock represents about 41 percent of the housing stock in the County, according to the Census Bureau's 2006 American Community Survey. Compared with the County overall, the City's housing stock features a higher vacancy rate, a higher proportion of multi-family housing, higher median home value, but lower median rent, as of 2006. City median household income was also lower than in the County in both 2000 and 2006.

Between 1990 and 1994 housing construction in the City came to a virtual standstill, as a result of a national recession that was particularly severe and longer lasting in the southern California region. Construction began to accelerate toward the middle of the decade, and approached the pace of the pre-recession period through 2006, before the early effects of the current recession affected the housing market. Population and household growth, and hence demand for housing, did not abate during this recession period and have accelerated since it ended, along with a resurgence in employment growth. As a result, the state as a whole, the southern California region and the City are undersupplied with housing relative to demand. This housing

production shortfall is part of the reason that California has one of the tightest and most expensive housing markets in the nation. The median existing home price in Los Angeles County peaked at $605,300 in August 2007, when only 23 percent of Los Angeles County first-time buyer households could afford to buy a median-priced home. Although the median price for existing homes has declined to $339,980 as of August 2009, following two years of the most significant national recession since the 1930s, still only 56 percent of first-time buyers can afford the County's median-priced home.

SCAG's recently adopted and State-approved 2007 Regional Housing Needs Assessment assigns 112,876 units to the City of Los Angeles for the 2006-2014 Housing Element planning period, or an annual average of about 15,000 new dwelling units per year. The housing production requirement for the unincorporated areas of Los Angeles County during the same 2006-2014 period is 57,176 units, or 7,147 per year. Following the onset of the national recession in December 2007, however, building permits for only 6,571 new units were issued in the City in 2008, and permits for only 13,704 units were issued in all of Los Angeles County.

In 1999, the Los Angeles City Council passed a motion instructing the City's Housing Department to convene a task force that would make recommendations to the Mayor and Council on options to alleviate the shortage of safe, decent and affordable housing within the City of Los Angeles. The Housing Crisis Task Force ("Task Force") was comprised of representatives from the City's Housing, Planning and Building and Safety Departments, City Housing Authority, Los Angeles Homeless Services Authority, as well as experts from the financial sector, the Chamber of Commerce, non-profit affordable housing developers, the Apartment Association of Los Angeles and other organizations.

The Report of the Task Force found that, in addition to having the worst housing shortage in the nation, Los Angeles rents and purchase prices were becoming so out of reach that average income families, including those working in essential public services (i.e., school teachers, health care workers and public safety workers), were fleeing to distant suburbs, while prices in many of the City's single-family areas remain affordable only to high-income households. This inability to house important sectors of its workforce threatens the City's economic health, according to the Report. (This situation has become even more problematic in the years since publication of the Task Force Report. Between 2000 and mid-2007, the median price of all homes sold in Los Angeles County increased 176 percent before plummeting during the current recession).

One source of this problem, according to the Task Force, is local land use patterns enshrined in community plans that emphasize single-family housing and automobile transportation, which have decreased the supply of residential land available for development to nearly zero. It notes that of about 125,000 acres of the City's land area devoted to residential uses,

the vast majority of it (84%) is used for single-family development and only about 16 percent is used for multi-family development. The Report further notes that most of the potential residential development capacity available through zoning would have to be constructed on land already being used for residential or commercial buildings, and observes that accommodating projected growth will require easing land use restrictions to permit more multi-family uses in mixed residential areas and on underutilized or obsolete commercial and industrial properties.

In order to increase the housing supply and develop more affordable units, the Report states that the City must revise its zoning and building codes to create additional building sites, increase the number of possible units and reduce development costs.

The Report also cited the need for a more flexible building envelope, removing barriers to mixed-use development, providing greater flexibility in lot sizes and continuing the reform of permit processing to make it easy for the public to file applications and obtain approvals. It also called on the City to work with the development community to find new ways to assemble sites in the City's underutilized commercial and industrial areas and with neighborhood groups to create more home ownership opportunities in selected areas using smaller lots. In addition, it recommended rezoning more property for multi-family use, and facilitating mixed-use projects, noting that available vacant parcels for housing development often are not large enough for profitable development and that it is difficult and time consuming to assemble parcels into sites large enough for building.

The Report's recommendations favoring higher-density residential development on infill sites have been embraced by many City Departments, including Planning and Housing, as well as City of Los Angeles Mayor Villaraigosa.

Project Impacts on Housing

The Project consists of the development of a residential community comprised of 2,937 dwelling units, plus approximately 2.01 million net new square feet for retail, entertainment, film and television production studio facilities, studio-related and other office uses, 500 hotel rooms and associated facilities, neighborhood-serving retail uses, and a child care center. The precise mix of units between condominiums and/or townhomes and apartments will depend on market circumstances at the time of construction. For the purposes of this analysis a mix of 60 percent condominiums and townhomes and 40 percent apartments has been assumed. Although no specific dwelling unit pricing is available yet, the target market includes young and mid-career professionals and executives whose households are singles, couples and small families, and seniors. In addition, the Applicant is considering providing a range of housing opportunities including work force housing (i.e., rentals affordable at up to 200 percent of area median income).

In scale terms, the Project's proposed 2,937 dwelling units, plus an estimated 232 units of local housing demand associated with new Project employment, would be equal to 10.0 percent of the households forecasted for the Southeast San Fernando Valley between 2008 and 2030, according to SCAG. The Project also represents one percent of SCAG's household forecast for the City of Los Angeles Subregion between 2008 and 2030.

The Project's provision of net new housing would occur without the displacement of any existing households and without the demolition or conversion of any existing rent-stabilized housing stock. The Project would assist the City (under the annexation scenario, or the County and the City with no annexation), in meeting its fair share of regional housing need, assist the Subregion to achieve a better overall balance between jobs and housing, and provide new ownership housing opportunities. If annexed into the City, the Mixed-Use Residential Area would conform to new City policy direction supporting higher density, compact, infill housing development that adds to the City's housing supply, while meeting other "smart growth" environmental objectives. If no annexation occurs, the Project is also generally consistent with the goals and objectives in the County's Housing Element. In addition, because the Project combines new housing with new jobs, it will have no numerical impact on the ratio of jobs to households (i.e., "jobs-housing balance") in SCAG's City of Los Angeles Subregion in 2030.

Due to the employment patterns of construction workers in southern California, and the operation of the market for construction labor, construction workers are not likely, to any significant degree, to relocate their households as a consequence of the job opportunities presented by the Project. Thus, there will not be any adverse housing impacts associated with construction of the Project. Even assuming, on the basis of existing employee characteristics, that some Project employees will generate additional housing demand of about 232 units in the same general market area, the Project's total housing impact falls within applicable housing and household forecasts.

Accordingly, notwithstanding the proposed General Plan amendment and zone change, the Project would respond to, but satisfy only a portion of, the unmet housing demand, rather than induce housing growth in the City under the annexation scenario, or in the County and the City with no annexation. The Project would help achieve the household growth targets for SCAG's City of Los Angeles Subregion. Therefore, the Project's housing effects are beneficial and not adverse within the meaning of CEQA, and no mitigation is required or recommended for Project impacts. Project households plus a proxy measure of households for "related projects" represent approximately 17.9 percent of forecasted households in the City of Los Angeles Subregion in 2030. The Project's incremental housing effect is not "cumulatively considerable" within the meaning of CEQA, and its cumulative housing impact is therefore less than significant.

D. POPULATION SETTING AND PROJECT IMPACTS

According to Department of City Planning estimates, the Southeast San Fernando Valley area included a population of 396,336, as of 2006, which is a higher density of about 10,700 people per square mile, compared with the Citywide average (8,205 persons per square mile). Nearly all of this population resides in homes, as opposed to group quarters. In 2000, as measured by the U. S. Census, about eight percent of the area's population was pre-school age (less than five years old), about 19 percent was of school age (6-19 years), just over half (57%) were adults age 20-55 years old, and about 16 percent were age 55 or older. This age profile is somewhat more weighted toward adults 20-55 years old than the Citywide age distribution. A higher proportion of households in the Southeast San Fernando Valley reside in multi-family housing than is the case in the City as a whole, and average household sizes are smaller.

Using a weighted average of 2.20 persons per household, based on 2000 census data for owner- and renter-occupied units in buildings with 20-49 units per building in the City of Los Angeles, and a tenure type mix of 60 percent condominiums/townhomes and 40 percent apartments, the 2,937 units in the Project will result in a population of 6,450 persons, if all units are occupied.

For the reasons described above with respect to housing, no adverse population impacts are predicted as a result of Project construction, since construction workers are not expected to relocate their households as a consequence of working at the Project. Research on the characteristics of existing Project Site employees indicates that few workers in the Project's non-residential uses are likely to relocate their households to a site closer to the Project as a direct result of taking a job there. If they do, however, the Project's new on-site residential units provide housing opportunities to accommodate some of them. Nevertheless, an allowance for 232 units of employee-related housing demand, and its associated population of 696 persons, has been included in the analysis of Project impacts.

In scale terms, the Project's total population impact of 7,146 persons is equal to about two percent of the future population in the Southeast San Fernando Valley by 2030, and about 25 percent of incremental population growth between 2008 and 2030, as projected by SCAG. The Project also represents about 2.4 percent of the 2008-2030 population growth in SCAG's forecast for the City of Los Angeles Subregion.

The Project, including the proposed General Plan amendment and zone change, would not induce substantial population growth, because it would not exceed the population growth forecast for SCAG's City of Los Angeles Subregion. Therefore, the Project would not have a significant

adverse population impact within the meaning of CEQA. No mitigation for Project impacts is required or recommended.

Project population plus a proxy measure of population for "related projects" represent approximately 6.8 percent of forecasted population in the City of Los Angeles Subregion in 2030. The Project's incremental population effect is not "cumulatively considerable" within the meaning of CEQA, and its cumulative population impact is therefore less than significant.

II. PURPOSE AND SCOPE OF THE ANALYSIS

A. INTRODUCTION

Universal City Studios LLLP, L.P. (the "Applicant") is proposing the NBC Universal Evolution Plan, a development program that meets the future needs of the existing businesses located within Universal City as well as the establishment of a new residential community that contributes to meeting the future housing needs of the eastern San Fernando Valley. In overview, the NBC Universal Evolution Plan (the "Project") is a mixed-use development consisting of approximately 2.01 million net new square feet of various types of new commercial uses, including 500 hotel rooms and related facilities, plus 2,937 multi-family residential units. The Project also includes the demolition of approximately 638,048 square feet of existing on-site uses. The Project proposes new development across all of the major types of land uses that occur on, and adjacent to, the Project; e.g., CityWalk, theme park, studio, retail, office and hotel uses, in addition to the introduction of residential uses. This proposed new development would be supported by additional parking facilities and improvements to the on-site circulation system.

The assessment reported herein is intended to provide data and analysis for use in preparing an Environmental Impact Report (EIR) on the Project pursuant to State law[1] and City and County requirements, prior to City and County consideration of certain permit approvals required to construct the Project. This Report was prepared by HR&A Advisors, Inc. (HR&A) for the City's use in preparing the Project's EIR.

The need to analyze the population and housing impacts of the Project is rooted in the CEQA Guidelines,[2] which identify population and housing as potential categories of project-related impacts which may merit investigation, depending upon the specific features of a proposed development project. The Initial Study completed for the Project concluded that there was a potential for the Project to have a significant impact on housing and population.[3]

[1] Public Resources Code § 21000, *et seq.*

[2] Calif. Admin. Code § 15000, *et seq.*

[3] Christopher A. Joseph & Assoc., *Initial Study for the Universal City Vision Plan*, submitted to the City of Los Angeles Department of City Planning, July, 2007.

B. PROJECT DESCRIPTION

The following is a synopsis of the Project. A more detailed Project Description is contained in the Project's Draft EIR.

1. Project Location

The NBC Universal Evolution Plan is proposed to be developed on an approximately 391-acre site, which is located two miles north of Hollywood and 10 miles northwest of downtown Los Angeles, in central Los Angeles County (the "Project Site"). The Project Site is also located approximately 1.5 miles south and east of the junction of U.S. Route 101 (Hollywood Freeway) and State Route 134 (Ventura Freeway). The Project Site is generally bounded by the Los Angeles River Flood Control Channel (LAFCC) to the north, the Hollywood Freeway to the south, Barham Boulevard and residences to the east, and Lankershim Boulevard followed by the Universal City Metro Red Line Station to the west. The Project Site is shown in a regional and local context in Figures II-1 and II-2, respectively. An aerial photograph of the Project Site and its relationship to surrounding communities is shown in Figure II-3. The Project Site has been extensively developed over the past 90 years, although the eastern portion of the Project Site is currently underdeveloped.

The Project Site is located in two jurisdictions, and currently includes approximately 95 acres (24 percent of the total Project Site area) located within the City of Los Angeles, and 296 acres (76 percent) in the unincorporated area of Los Angeles County. The portion of the Project Site within City jurisdiction, as shown in Figure II-3, involves primarily three non-contiguous areas surrounding the County portion, with small areas along the northern boundary of the Project Site also located within the City of Los Angeles. Proceeding clockwise from the north, the three primary areas are as follows: (1) the northeastern corner of the Project Site along Barham Boulevard; (2) the southeastern corner of the Project Site along Barham Boulevard and Coral Drive; and, (3) the southern and southwestern portion of the Project Site adjacent to the Hollywood Freeway, which also includes Universal Hollywood Drive and a limited amount of frontage along the north side of Universal Hollywood Drive.

In addition, the Project Site includes two small areas within the City along the northern property boundary (i.e., at the northwestern corner of the Project Site and midway across the Project Site). The portion of the Project Site within County jurisdiction is a contiguous area encompassing most of the northern, central and western portions of the Project Site.

Figure II-1: Regional Vicinity Map

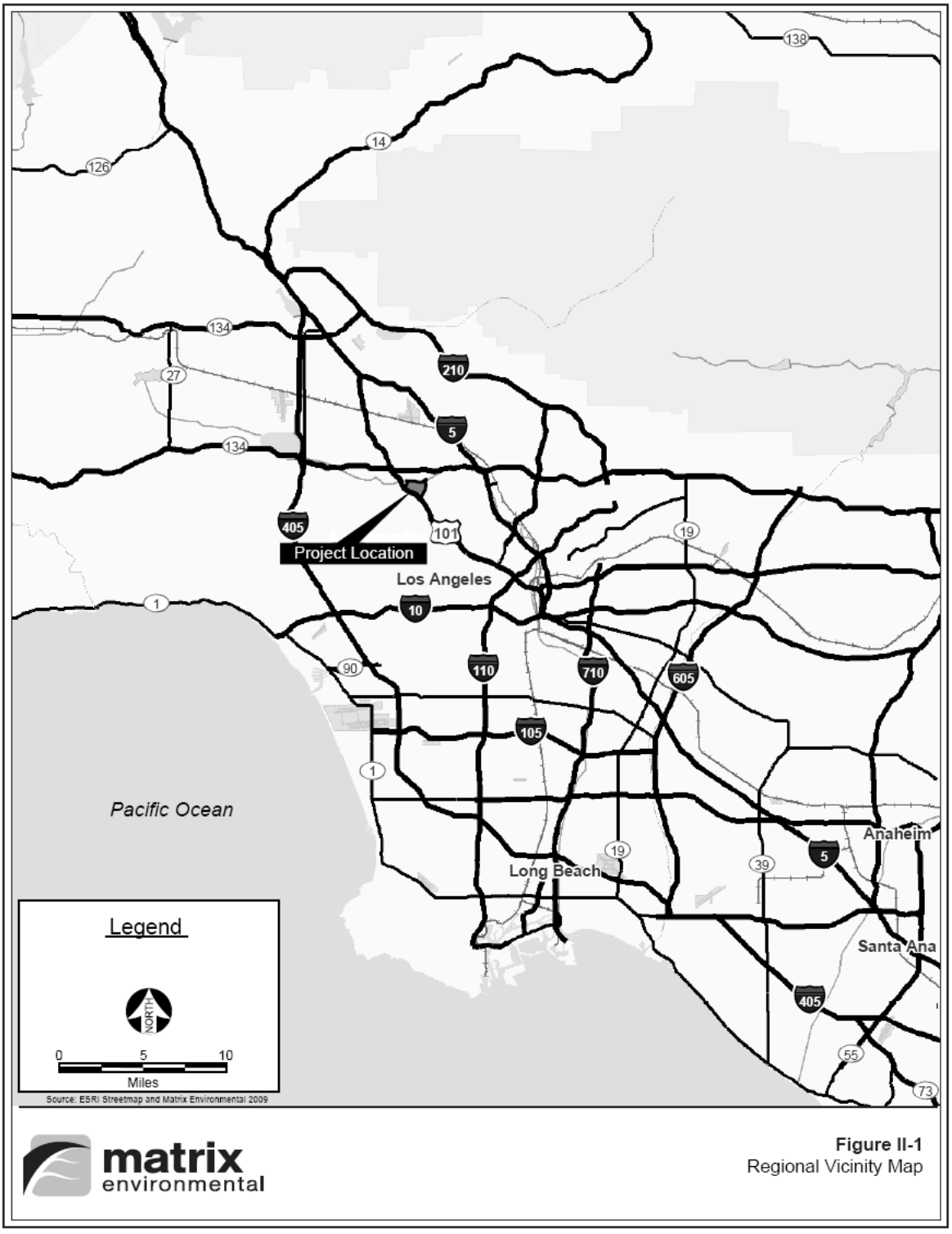


Figure II-2: Project Location Map

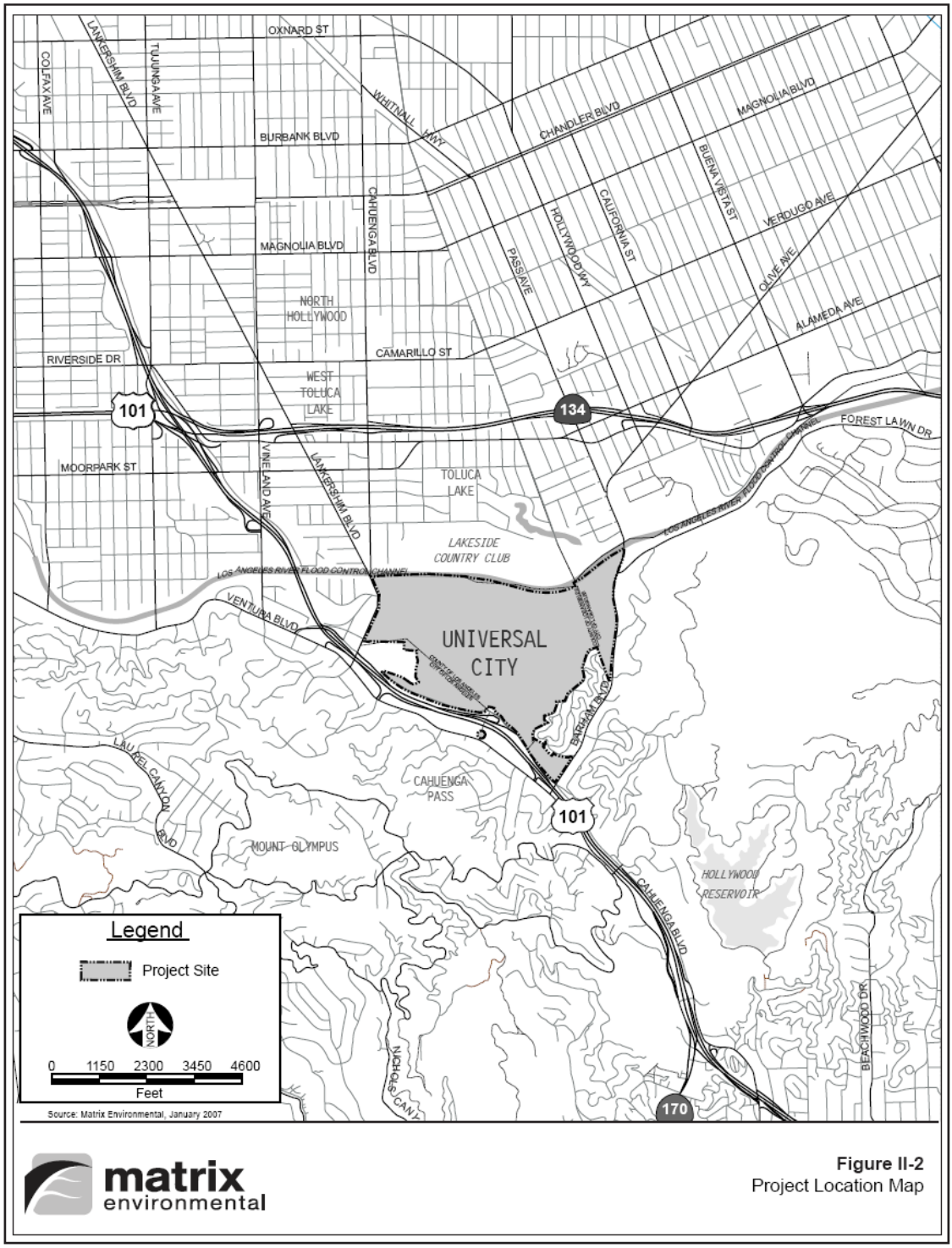


Figure II-3: Aerial Photo of the Project Site

2. Existing Setting of the Universal City Project Site

The Project Site is presently developed with the following principal land uses: amphitheater, entertainment retail, entertainment, studio production (movie, television and commercial) studio office, and office uses. The Project Site currently consists of approximately 4.2 million square feet of development. The Project Site also includes numerous production sets and the Universal Studios Tram Tour, which do not account for floor area. In addition, during the public review process of the NBC Universal Evolution Plan, it is anticipated that the Applicant would need to construct additional entertainment, studio, studio office and infrastructure improvements as part of its on-going business activities (i.e., interim projects). As such, existing uses, as referenced hereafter, also include projects currently under construction or anticipated to be constructed during the period in which the Project is to be reviewed by the City and the County. A summary of existing uses, inclusive of the interim projects, is shown in Table II-1.

Table II-1
Existing Land Uses

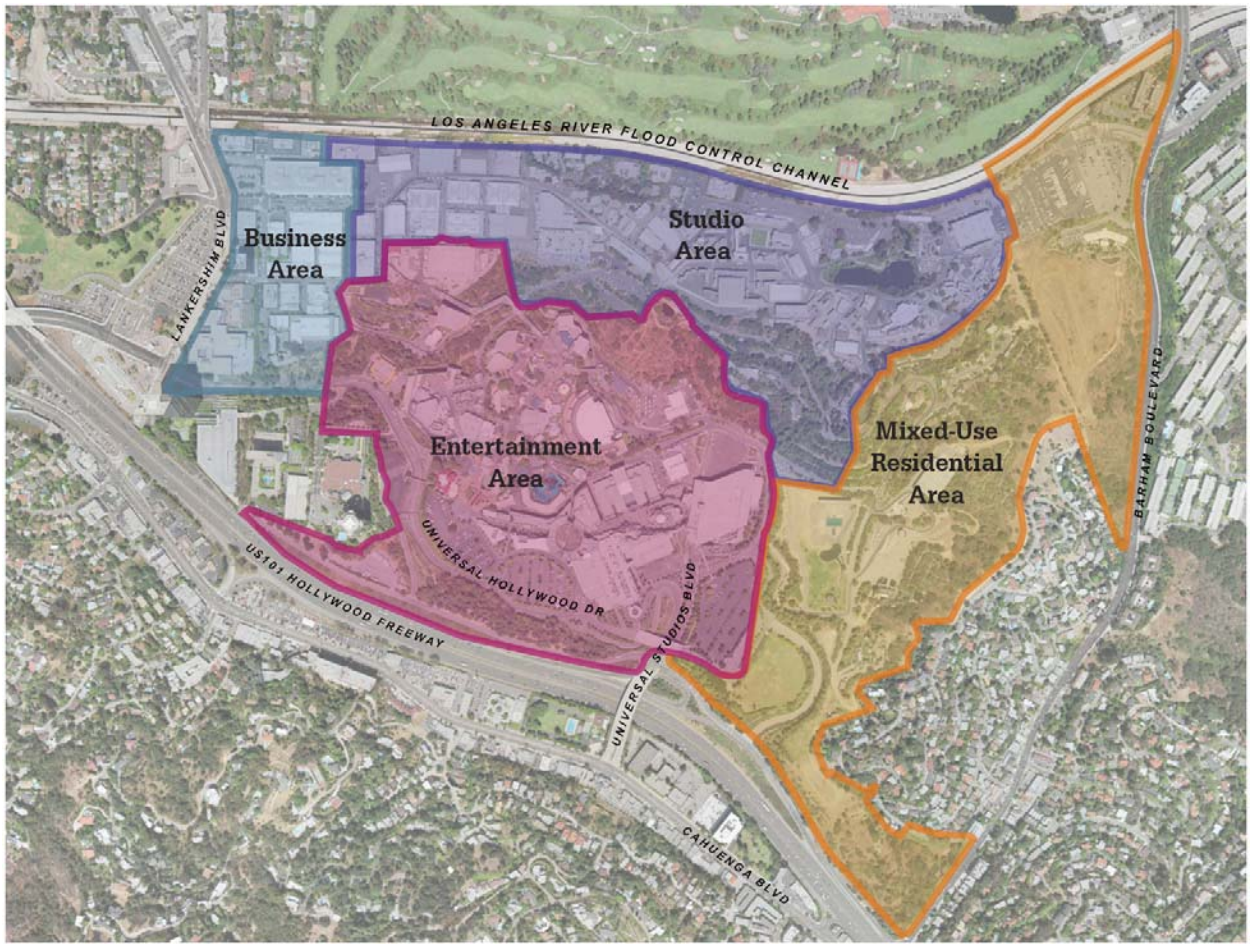
Existing Uses	Square Feet of Building Area
Amphitheater	110,600
Entertainment Retail	656,144
Entertainment Use	775,132
Studio	1,228,120
Studio Office	942,545
Office	463,430
Total	**4,175,971**

Source: Universal City Studios LLLP, L.P.

3. Proposed NBC Universal Evolution Plan

The Project proposes a development program that meets the future needs of the existing businesses located within and adjacent to the Project Site as well as the establishment of a new residential community that contributes to meeting the future housing needs of the eastern San Fernando Valley. The Project Site, for planning purposes, has been divided into the following four development areas: (1) Entertainment Area; (2) Studio Area; (3) Business Area; and (4) Mixed-Use Residential Area. These four development areas are shown on an aerial photograph of the Project Site in Figure II-4.

Figure II-4. Proposed Development Areas



Source: Rios Clemente Hale Studios

The Project proposes the development of approximately 2.6 million square feet of new amphitheater, entertainment, entertainment retail, office, studio, studio office, neighborhood serving uses, including 500 hotel rooms and related hotel facilities. In addition, approximately 2,937 residential dwelling units are proposed to be constructed within the Mixed-Use Residential Area located on the eastern portion of the Project Site. A total of approximately 180,000 square feet of neighborhood-serving uses would be developed as part of, and to support, the proposed on-site residential development. To implement the Project as proposed, a total of approximately 638,000 square feet of existing on-site uses would be demolished. As a result, approximately 2.01 million net new square feet of amphitheater, entertainment, entertainment retail, studio, studio office, and office uses, including 500 hotel rooms and related hotel facilities are proposed. As part of this Project, the Universal Studios Tram Tour and a few Back Lot sets would be reconfigured and relocated within the Studio Area of the Project Site. Table II-2, below, provides a summary of the proposed Project.

Table II-2
Preliminary Building Program

Land Use	Existing Development [a]	Demolition	Gross New Development	Net New Development	Total Development
Studio (sq. ft.)	1,228,120	185,051	493,000	307,949	1,536,069
Studio Office(sq. ft.) [b]	942,545	107,674	545,000	437,326	1,379,871
Office (sq. ft.)	463,430	54,594	550,000	495,406	958,836
Entertainment (sq. ft.)	775,132	149,345	295,000	145,655	920,787
Entertainment Retail (sq. ft.)	656,144	30,784	70,000	39,216	695,360
Amphitheater (sq. ft.)	110,600	110,600	60,000	(50,600)	60,000
Hotel	--	--	450,000 [c]	450,000 [c]	450,000 [c]
Neighborhood Retail and Community-Serving Commercial (sq. ft.)	--	--	180,000 [d]	180,000 [d]	180,000 [d]
Residential	--	--	2,937 units	2,937 units	2,937 units
Total					
Commercial (sq. ft.)	**4,175,971**	**638,048**	**2,643,000**	**2,004,952**	**6,180,923**
Residential	--	--	**2,937 units**	**2,937 units**	**2,937 units**

[a] *Includes interim projects.*
[b] *Studio Office uses include 15,000 square feet of new child care center and demolition of an existing 10,000-square-foot center.*
[c] *Hotel square footage includes up to 500 hotel guest rooms as well as related hotel facilities.*
[d] *Includes 65,000 square feet of community serving facilities.*

Source: NBC/Universal, 2009; Matrix Environmental, 2009.

The Applicant, in addition to the proposed development described above, is seeking approval from the Local Agency Formation Commission (LAFCO) to annex approximately 76 acres from the County's jurisdiction into the City of Los Angeles. This will have the effect of placing the proposed residential development within the future Mixed-Use Residential Area under the jurisdiction of the City of Los Angeles. The proposed Project would also involve detachment of approximately 32 acres of the Project Site from the City's jurisdiction into the County, for an overall net change of approximately 44 acres from the County to the City.

Should the annexation process be completed, approximately 139 acres of the Project Site would be located within the City of Los Angeles, and the remaining approximately 252 acres of the Project Site would be located within the unincorporated area of Los Angeles County.

The Project is proposed to be implemented via two proposed Specific Plans and various other land use entitlements. One proposed Specific Plan would address development within the

County portions of the Project Site, namely the Entertainment, Studio and Business Areas; the other proposed Specific Plan will address development within the City portions of the Project Site, namely the Mixed-Use Residential Area.

The proposed Specific Plans would describe a range of allowable land uses and square footages, as well as applicable building envelopes providing height limitations, setbacks, and related urban design parameters. As flexibility is contemplated in the proposed Specific Plans with regard to particular uses, siting, and massing characteristics, a Conceptual Plan has been prepared as an illustrative scenario to comprehensively demonstrate a potential development program that implements the proposed Specific Plans' land use and development standards. The current Conceptual Plan for the Project is shown in Figure II-5. The Conceptual Plan is consistent with the allocation of land uses shown in Table 1 and with all of the development regulations that would be made a part of the proposed Specific Plans.

Although the Conceptual Plan shown in Figure II-5 provides a reasonable illustration of how the future Project Site may appear, the uses, location, and orientation of actual future buildings have not yet been determined. Building heights (discussed in more detail below), open space, lighting, signage, landscaping, and architectural features would be consistent with proposed Specific Plan requirements. It is anticipated that all residential development would be developed within the Mixed-Use Residential Area that is located on the eastern portion of the Project Site.

Figure II-5. Conceptual Plan

Source: Rios Clemente Hale Studios

4. Project Construction/Phasing Schedule

The Project would be developed in a number of phases. The Applicant anticipates that construction would conclude by 2030. The timing of actual development would be in response to market conditions.

C. CEQA ISSUES RELATED TO EMPLOYMENT, HOUSING AND POPULATION IMPACTS

The focus of environmental analysis prepared under CEQA is a project's potential to cause effects on the *physical* environment.[4] Accordingly, the State CEQA Guidelines state that while economic or social information may be included in an EIR, or may be presented in whatever forms the lead agency desires, social and economic effects shall not be treated as significant effects on the environment.[5] There must be a physical change resulting from the project directly or indirectly for an impact to be considered "significant."[6]

Social and economic effects, including employment, housing and population impacts are, however, relevant CEQA issues to the extent that a chain of cause and effect can be traced from a proposed project through anticipated social and economic changes resulting from the project to physical changes caused in turn by the economic and social changes.[7] For example, the construction of housing in undeveloped areas may adversely impact significant natural resources. The development of housing in undeveloped areas may also be growth inducing. On the other hand, the provision of infill housing to meet an area's existing housing needs may avoid or slow urban sprawl, and reduce adverse environmental impacts, such as regional congestion, vehicle miles traveled (VMT) for work commuting purposes, and attendant air quality impacts. If a project's physical impacts may cause social or economic effects, the magnitude of the social or economic effects may be relevant in determining whether a physical impact is "significant."[8] If the physical change causes adverse economic or social effects on people, those adverse effects may be used as the basis for determining that the physical change is significant.[9]

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[4] "Environment" means the physical conditions which exist within the area which will be affected by a proposed project, including land, air, water, minerals, flora, fauna, noise, and objects of historic or aesthetic significance. (Pub. Res. Code § 21060.5).

[5] CEQA Guidelines §§ 15131(a) and 15064(f); see also Pub. Resources Code §§ 21100 and 21151. "Significant effect on the environment" means a substantial, or potentially substantial adverse change in the environment. (Pub. Res. Code § 21068).

[6] See discussion following CEQA Guidelines § 15131.

[7] CEQA Guidelines §§ 15131(a) and 15064(f).

[8] Id., § 15131(b). For example, a project's direct and indirect population can be used to estimate the amount of natural resources, energy resources and public services that might be consumed as a result of the project, and whether the resulting scale of use is "significant."

[9] *Id*., § 15064(f).

Social and economic issues, and housing and population in particular, are relevant to the CEQA requirement that an EIR address the growth-inducing impacts of a project. An EIR must "[d]iscuss the ways in which the proposed project could foster economic or population growth, or the construction of additional housing, either directly or indirectly, in the surrounding environment."[10]

A lead agency must also consider economic, social, and particularly housing factors, together with technical and environmental factors in determining the feasibility of proposed measures to avoid or reduce the significant effects identified in the EIR.[11] Thus, housing and population issues are relevant in determining whether any impacts on the physical environment are "significant." Accordingly, City environmental documentation typically includes information on these issues sufficient to inform the public and assist City decision makers in making the relevant determinations required by CEQA.

Based on the criteria set forth in the City of Los Angeles 2006 CEQA Thresholds Guide, the Project would have a significant impact on employment if:

1. It would cause growth (i.e., new employment, housing or population), or accelerates development in an undeveloped area, that exceeds projected/planned levels for the year of Project buildout; or

2. It is not compatible with adopted local and regional employment, housing or population growth policies, including jobs/housing balance, as set forth in the County's General Plan, the City's General Plan and the Southern California Association of Government's (SCAG) Regional Comprehensive Plan and Guide (RCPG).

Also based on the City of Los Angeles 2006 CEQA Thresholds Guide, the Project would have a significant impact on housing and population if:

1. It would cause growth or accelerate development in an undeveloped area that exceeds projected/planned levels for the year of projected occupancy/buildout, and that would result in an adverse physical change in the environment.

2. It is not compatible with adopted local and regional employment, housing or population growth policies, including jobs/housing balance, as set forth in the County's General Plan, the City's General Plan and the Southern California Association of Government's (SCAG) Regional Comprehensive Plan and Guide (RCPG).

[10] *Id*., § 15126(g).

[11] *Id*., § 15131(c).

3. It would introduce unplanned infrastructure that was not previously evaluated in the adopted Community Plan or General Plan.

4. It represents a substantial amount of growth to occur which would not occur without implementation of the Project.

Accordingly, the Project is evaluated in terms of consistency with applicable City, County and SCAG forecasts and policies concerning employment, housing and population growth.

D. GEOGRAPHIC ANALYSIS ZONES

Due to the regional nature of the Project, and the scale at which employment and housing markets operate, the analysis of potential Project impacts is presented in terms of two geographic zones around the Project Site. These zones are:

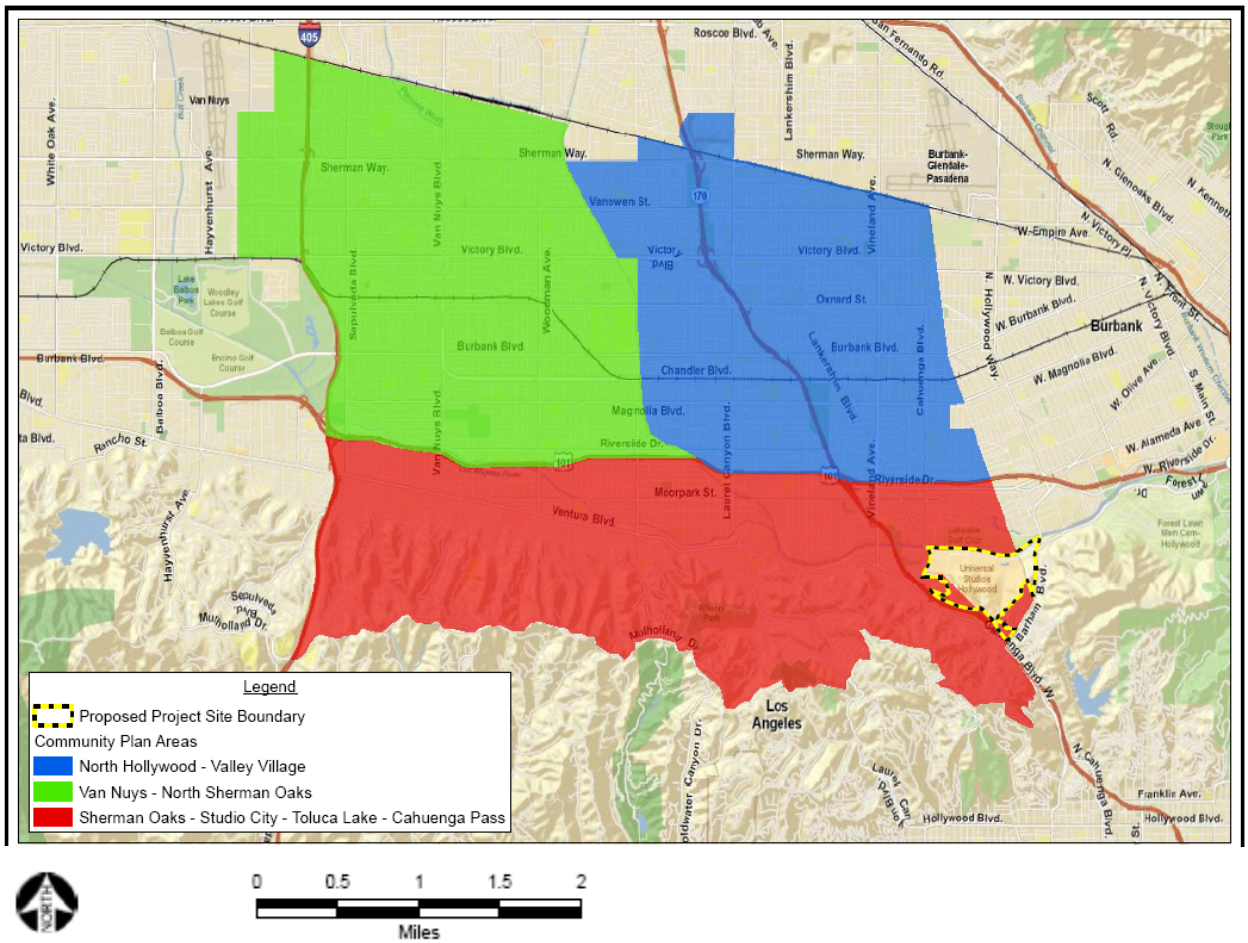
- ***The City of Los Angeles Subregion.*** The Southern California Association of Governments (SCAG) divides its six-county planning area into 14 subregions. The Project Site is located within the City of Los Angeles Subregion. In addition to all areas within the boundaries of the City of Los Angeles, this subregion also includes the City of San Fernando, certain unincorporated Los Angeles County "islands," and certain property owned by the State and federal governments.

- ***The Southeast San Fernando Valley.*** This subarea of the City of Los Angeles is included for context, but has no official status as a planning area for SCAG or the City or County. It is bordered on the west roughly by the San Diego Freeway (I-405), on the south by Mulholland Drive, on the north by the Metrolink right-of-way that runs from about Roscoe Boulevard southeast to Vanowen Street, and on the east by the City of Los Angeles border with the City of Burbank (see Figure II-6).

  This area corresponds to the City of Los Angeles Community Plan areas of Sherman Oaks-Studio City-Toluca Lake-Cahuenga Pass, Van Nuys-North Sherman Oaks and North Hollywood-Valley Village. Only some relatively undeveloped outer edges of the Project Site are located physically within the boundaries of the Sherman Oaks-Studio City-Toluca Lake-Cahuenga Pass Community Plan. Most of the currently developed land area in the Project Site is an unincorporated County area that is not included in the Community Plan's land use policies or City General Plan growth forecast. As a result, use of that Community Plan area alone in this analysis is inappropriate for statistical analysis, but is addressed in terms of employment, households and population growth policies.

Comparisons between the Project and the entire County and City of Los Angeles, and the six-county southern California region, are also included when relevant. In addition, the Project description includes the possibility that the proposed new residential area of the Project Site, called the Mixed-Use Residential Area, and certain other small areas of the Project's Entertainment, Business and Studio Areas, may be annexed from the County of Los Angeles into the City of Los Angeles. The implications of that annexation or no annexation are also addressed in this analysis.

Figure II-6
Southeast San Fernando Valley



Source: Matrix Environmental

E. ORGANIZATION OF THE REPORT

The remaining Chapters of this Report are each organized to follow the standard analytic sequence typically found in EIRs — i.e., a description of pre-Project trends and future forecasts/projections absent the Project, followed by an analysis of how these forecasts/projections would be altered as a result of the additional housing and population impacts of the Project. These Chapters are:

- ***Economic and Employment Impacts.*** This Chapter describes pre-Project trends and projections of the general economy and characteristics of employment in the Project vicinity. It then evaluates the number and character of jobs supported by construction and operation of the completed Project, and the relationships between these impacts and employment growth and economic development policies and, specifically, its relationship to SCAG's 2030 growth forecast for the City of Los Angeles Subregion, and applicable City, County and SCAG growth policies. Analysis for the Southeast San Fernando Valley area is also included for informational purposes only.

- ***Housing Impacts.*** This Chapter describes pre-Project trends and projections of the size and characteristics of the housing stock in the City of Los Angeles and Southeast San Fernando Valley. It then evaluates the Project in terms of County and City housing growth policies and SCAG's growth forecast for the City of Los Angeles Subregion. Analysis for the Southeast San Fernando Valley area is also included for informational purposes only. The Project's impact on Subregional jobs-housing balance is also evaluated.

- ***Population Impacts.*** This Chapter describes pre-Project trends and projections of the size and characteristics of the population in the City of Los Angeles and the Southeast San Fernando Valley. It then evaluates the Project in the context of County and City population growth policies and SCAG's population growth forecasts for the City of Los Angeles Subregion. Analysis for the Southeast San Fernando Valley area is also included for informational purposes only.

III. ECONOMIC AND EMPLOYMENT IMPACTS

A. INTRODUCTION

This Chapter discusses the general economic and employment context and applicable City and regional employment growth and economic development policies. It then evaluates the Project's economic and employment impacts, and cumulative impacts, against the applicable CEQA threshold, individually and together with related projects.

B. ENVIRONMENTAL SETTING: EXISTING AND FUTURE CONDITIONS WITHOUT THE PROJECT

1. The General Economic, Employment and Economic Development Policy Context

By 2007, the southern California economy had recovered nearly all of the jobs lost during the early 1990s, when a combination of defense industry restructuring and recession, coupled with natural disasters (e.g., 1994 Northridge earthquake) and manmade problems (1992 civil disturbance in Los Angeles) resulted in a loss of over 500,000 jobs. Since 2000, except for temporary losses due to the effects on the economy of the September 11, 2001 terrorist attacks on New York and Washington, D.C., the region's employment and economic growth have been outpacing both the state and national economies. In 2007, the region's 7.4 million total non-farm jobs accounted for about half (48.1%) of California's non-farm employment. Its $814.3 billion gross regional product ranked as the 16th largest in the world – between Mexico and the Netherlands.[12] The four cornerstones that support the region's economy, which is now much more diversified than in the past, are: (1) international trade, primarily through Los Angeles International Airport and the Ports of Los Angeles, Long Beach and Port Hueneme; (2) the nation's largest entertainment and tourism sector; (3) the nation's largest diversified manufacturing sector; and (4) professional services, biotechnology and design markets. The national recession that officially began in December 2007 has cost the State 955,200 jobs as of September 2009, including 585,818 jobs in southern California.[13]

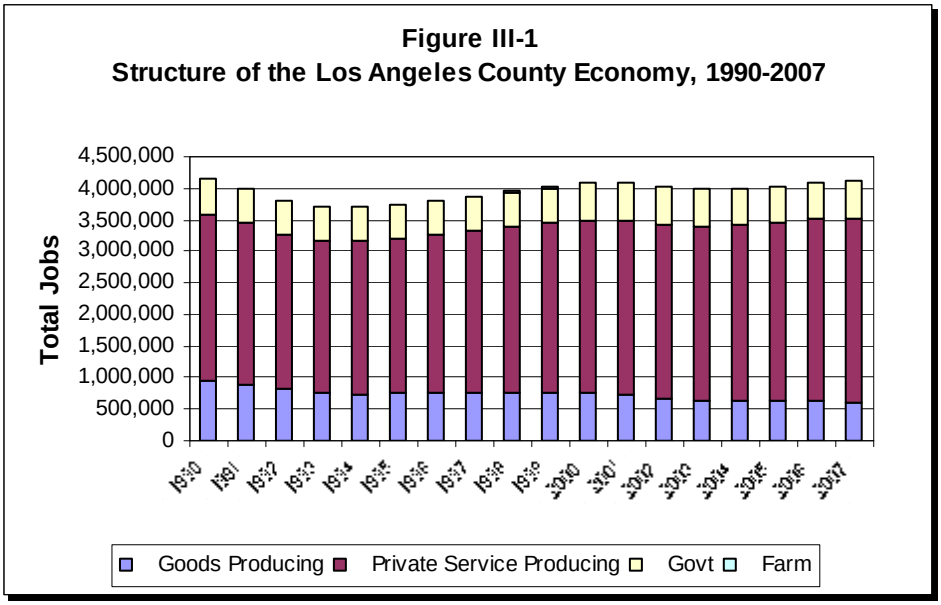
[12] Los Angeles County Economic Development Corporation (LAEDC), *2008-09 Economic Forecast and Industry Outlook*, February 2008.

[13] CA Employment Development Dept., Labor Market Information Division (available at: http://www.laborrmarketinfo.edd.ca.gov/?PAGEID=94).

Tourism and entertainment accounted for about 371,200 total jobs in the region in 2007, including about 157,800 jobs in the film and television production sectors;[14] about 129,400 jobs in the arts, entertainment and recreation sectors; and 84,000 jobs in hotels and other components of the "accommodations" sector.[15] The motion picture, television and tourism sectors are particularly important because of their high "multiplier" effect (i.e., depends on jobs and services from a wide range of other sectors), and well above-average annual earnings per job.

Los Angeles County, which bore the brunt of the State's economic downturn in the early 1990s, did not begin recovering jobs until 1995. But, 12 years later (i.e., by 2007), the County regained nearly all of the jobs lost during that period, as shown in Figure III-1. Like the southern California region as a whole, this growth has been accompanied by significant changes in the structure of the County economy.

Figure III-1
Structure of the Los Angeles County Economy, 1990-2007



[14] California Employment Development Dept., Annual Average Industry Employment by County, for Los Angeles, Orange, Riverside, San Bernardino and Ventura, March 2007 benchmark (available at: http://www.labormarketinfo.edd.ca.gov/cgi/databrowsing/?PageID=4&SubID=166). Counts of jobs in the "film and television production sector" vary considerably in terms of who they include. Most estimates cite the single "motion picture and sound recording" sector (NAICS 512000), because it is readily accessible and comparable across geographies. Others also include jobs in radio and television broadcasting (NAICS 515000), and independent artists, writers and performers (NAICS 711500). Even this more inclusive definition counts only those working for companies that report wage and salary data to state and federal agencies. Neither definition includes those who are self-employed, of which there are many in this industry. Thus, nearly all published industry employment estimates are probably understated.

[15] *Id.*

For example, as shown in Table III-1, since 1994 the Los Angeles County manufacturing sector lost 131,900 more jobs, for an overall total loss of over 364,900 jobs since 1990. Private service-producing sectors added 484,700 jobs since 1994, primarily in the educational and health services, trade, transportation and utilities, leisure and hospitality, professional and business services, and information sectors, while the government sector added 55,000 jobs since 1990.[16]

Over the past two years, problems related to the proliferation of subprime mortgages at the height of the housing price run-up, restrictions on credit availability, energy cost inflation, and labor unrest, among other factors, have combined to slow employment and economic growth in the region. Los Angeles County had relatively less exposure to the housing sector difficulties than some other southern California counties in the region. The annual average unemployment in Los Angeles County for 2007 was 5.0 percent, compared with 5.6 percent in San Bernardino County and 6.2 percent in Riverside County, and 5.4 percent for the state as a whole.[17] Nearly two years later, as a national recession appears to be reaching an end in a technical sense, the annual average unemployment in August 2009 in Los Angeles County is 12.6 percent, compared with 13.9 percent in San Bernardino County and 15.0 percent in Riverside County, and 12.1 percent for the state as a whole.[18]

[16] *Id.*

[17] CA Employment Development Dept., Labor Market Information Division (available at: http://www.calmis.ca.gov/file/lfhist/07aacou.pdf).

[18] *Id.* (available at: http://www.labormarketinfo.edd.ca.gov/?pageid=131).

Table III-1
Employment in Los Angeles County, 1990-2007

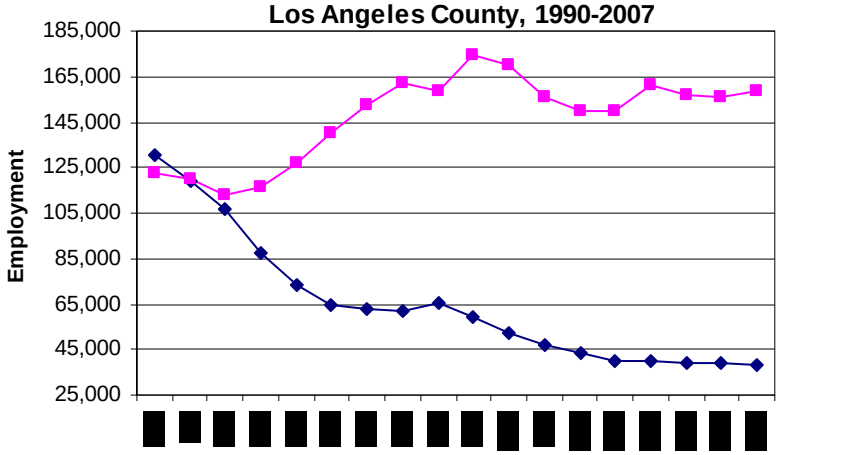
Industry Sectors	1990-1994	1994-2007	1990 - 2007
Goods-Producing			
Natural Resources and Mining	-4,000	200	-3,800
Construction	-36,000	48,100	12,100
Manufacturing	-184,700	-180,200	-364,900
Subtotal	-224,700	-131,900	-356,600
Private Service-Producing			
Trade, Transportation and Utilities	-82,900	107,600	24,700
Information	-8,600	31,600	23,000
Financial Activities	-48,100	13,200	-34,900
Professional and Business Services	-35,200	99,300	64,100
Educational and Health Services	-17,300	120,900	103,600
Leisure and Hospitality	-1,500	92,200	90,700
Other Services	-9,500	19,900	10,400
Subtotal	-203,100	484,700	281,600
Government	-6,100	61,100	55,000
Subtotal Non-Farm	-433,900	413,900	-20,000
Farm	-5,200	-700	-5,900
Total All Industries	-439,100	413,200	-25,900

Sources: CA Employment Development Dept.; HR&A, Inc.

This fundamental change in the structure of the region's economic base since 1990 can be most clearly demonstrated by comparing employment trends in motion picture, television and video production and distribution with aircraft and aircraft parts manufacturing. In 1990, there were about as many jobs in aerospace manufacturing as in the motion pictures and television production industry, including broadcasting and independent artists, writers and performers. By 2007, there were just over three and one-third (3.39) times as many jobs in motion pictures and television[19] as in aerospace, as shown in Figure III-2.

[19] Including the motion picture and sound recording, broadcasting and independent artists industry sectors.

Figure III-2
Employment in the Aerospace and Film-TV Industries, Los Angeles County, 1990-2007



Jobs in the film and television production sectors totaled 158,300 in 2007, or about four percent of non-agricultural jobs. This represents a gain of 35,400 jobs since 1990, and at the same time that aerospace manufacturing lost 91,700 jobs.

Los Angeles County maintains, at least for now, its historical competitive edge in this sector because of a very high concentration of film, television and commercial production studios and their allied creative and technical businesses. Despite fierce competition from other regions, states and nations, over 90 percent of California's motion picture production and support industries are located in Los Angeles County.

Fueling the growth of this sector is the merger of the creative talent of Hollywood with the advanced computer technology talent that originated in Silicon Valley. This creative merger has spawned entire new manufacturing industries (including computerized games, toys, and educational and business software), new forms of themed electronic amusements (at such diverse venues as multiplex cinemas, restaurants, shopping malls and sports stadiums), and even a new category of real estate development -- "urban entertainment destinations," of which CityWalk is one example.

The entertainment and tourism sectors are, in many ways, ideal for leading the region and Los Angeles County into the future. They impose relatively modest impacts on infrastructure and the environment, compared with other forms of development. They generate demands for many services and products which are filled by large numbers of diverse small entrepreneurs, many of whom are also located in the County and the region. The entertainment industry, in particular, is one of the few that is simultaneously open to new entrants, funding, global competition, and new

market development. Its use of non-routine partnering with a variety of small specialized firms and entrepreneurs for project-by-project collaborations, and strategic alliances with competitors, are exactly the characteristics that economists believe are essential for business to compete successfully in the increasingly global economy.

The entertainment and tourism sectors also fill a gap created by the region's emerging role in foreign trade and value-added, technology-oriented manufacturing. The region's new, post-Cold War high technology industries are extremely efficient in their use of capital and equipment, but they are not very labor intensive. The region's output in the production of medical instruments, for example, is expected to increase by more than half by the year 2020, but, ironically, employment in this industry is projected to drop by 25 percent, due to advances in electronic manufacturing. If the entertainment and tourism sector is encouraged to grow and expand in the region, it will have the added value of taking up part of the employment slack. This is because it includes an unusually wide variety of skilled and unskilled jobs, both high-wage and entry-level employment opportunities and internal career ladders.

But the industry also faces numerous challenges. Internal challenges include relationships between management and numerous guilds (i.e., labor unions), corporate media consolidations, a leveling off of DVD sales which fueled significant financial growth until very recently, and rapid changes in new entertainment delivery technology that affect the distribution of creative content. External challenges include product piracy, filming location competition from other locales, and uneven annual box office receipts and theater ticket sales.[20] The City of Los Angeles is currently considering a range of new incentives to encourage television and film production companies to remain active in the Los Angeles area.[21]

2. The Regulatory Context for Economic and Employment Impacts

There is a variety of growth forecasts and economic, economic development and employment policies at the County, City and regional levels that are relevant to a determination of Project consistency with adopted plans. These are described below.

[20] See generally, Los Angeles Economic Development Corporation, *Film Industry Profile of California/ Los Angeles County*, November 29, 2005.

[21] "LA wants to stem runaway film production, Daily Breeze, October 7, 2009 (available at: http://www.dailybreeze.com/news/ci_13506453?source=rss).

a. County of Los Angeles

The County of Los Angeles plans that are relevant in determining Project consistency with adopted local employment goals and policies include sections of the County's General Plan. The County's General Plan includes ten chapters and Elements which present goals, objectives and policies for all of the State-mandated planning topics, as well as several discretionary topics, (e.g., economic development). The General Plan also contains Local Plans, which provide detailed development standards and criteria that provide more locale-specific interpretations of the overall General Plan policies. There is no such Local Plan for the Project Site. In addition, the General Plan contains 1987-2010 growth forecasts, including a forecast for jobs.

The County's current General Plan divides the entire County into 14 subareas for analysis purposes, including forecasts of employment growth. The Project is located in the Burbank/Glendale Planning Area. The County is now in the process of updating its General Plan. It is expected that the new version of the Plan will be organized around unincorporated areas within SCAG's system of Subregions, and utilize the relevant data from SCAG's regional growth forecast.[22] Thus, the Burbank/Glendale Planning Area and the former 1987-2010 growth forecast from the current General Plan are no longer considered relevant for assessing Project consistency with applicable growth policies.

The County General Plan's economy and employment goal is to achieve a strong, diversified economy and full employment. Employment-related policies to implement this goal include encouraging the location of employment opportunities in regional centers (**Policy #50**); encourage a strong diversified economy that will provide business opportunities, an adequate number of jobs for the County's labor force and an improved standard of living (**Policy #64**); and promote jobs within commuting range of urban residential areas (**Policy #65**). The Economic Development Chapter of the County General Plan includes policies and programs to improve employment and income opportunities for County residents, and includes an Economic Development and Revitalization Policy map.

b. City of Los Angeles

The City's General Plan includes the General Plan Framework Element, nine other Citywide Elements (Air Quality, Conservation, Historic Preservation and Cultural Resources, Housing, Infrastructure Systems, Noise, Open Space, Public Facilities and Services, Safety and Transportation), and 35 Community Plans. Economic and employment issues for the Project Site area are addressed in the General Plan Framework Element and the Sherman Oaks-Studio City-

[22] This is the approach used by the County when it updated its Housing Element in 2001 and 2008.

Toluca Lake-Cahuenga Pass Community Plan. The Housing Element is discussed in the next Chapter of this Report and the other General Plan Elements are discussed in the Project's Draft EIR.

(1) The General Plan Framework Element

The General Plan Framework Element ("General Plan Framework" or "Framework Element"), adopted in December 1996 (re-adopted August 2001), is a strategy for long-term growth which sets a citywide context to guide the update of the Community Plans and citywide elements.[23] As stated in the General Plan Framework Element, "[the Framework Element] does not convey or affect entitlements for any property. Specific land use designations are determined by the Community Plans."[24] Thus, the Framework Element neither overrides nor supersedes the Community Plans.

The General Plan Framework Element focuses on providing strategies for accommodating growth by encouraging growth in a number of higher-intensity commercial and mixed-use districts, centers, and boulevards and industrial districts particularly in proximity to transportation corridors and transit stations. It is intended to be flexible and provides a Long Range Land Use Diagram recommending the creation of new land use categories for targeted growth areas in various areas of the City that will contain international centers, regional centers, community centers, neighborhood districts, and mixed-use boulevards based on the planning principles, goals, objectives and policies it discusses. The Framework Element provides that precise determinations regarding future growth and development will be made through the Community Planning process. The Framework Element encourages future growth and development within target areas, but does not require that future development and growth be limited to target areas.

The Framework Element's fundamental economic development goals are twofold: (1) to provide the physical locations and competitive financial environment necessary to attract various types of economic development to Los Angeles; and (2) to encourage the geographic distribution of job growth in a manner supportive of the City's overall planning objectives. In order to encourage economic development in Los Angeles and effectively compete for limited

[23] City of Los Angeles Department of City Planning, *The Citywide General Plan Framework, An Element of the City of Los Angeles General Plan*, adopted December 11, 1996 and re-adopted August 8, 2001 (available at: http://cityplanning.lacity.org/). (Hereinafter referred to as "General Plan Framework" or "Framework").

[24] General Plan Framework Element, p. 1.

opportunities in an increasingly competitive national economy, the Framework Element calls on the City to offer meaningful development incentives.[25]

Among the Framework Element's policies that are relevant to the Project are:[26]

- 7.2.2 Concentrate commercial development entitlements in areas best able to support them, including community and regional centers, transit stations, and mixed-use corridors. This concentration prevents commercial development from encroaching on existing residential neighborhoods.

- 7.2.3 Encourage new commercial development in proximity to rail and bus transit corridors and stations.

- 7.2.5 Promote and encourage the development of retail facilities appropriate to serve the shopping needs of the local population when planning new residential neighborhoods or major residential developments.

- 7.2.6 Concentrate office development in regional mixed-use centers, around transit stations, and within community centers.

- 7.5.4 Proactively market Los Angeles to emerging industries to encourage them to locate within the City, with an emphasis on the attraction of environmentally-oriented and "clean" industries.

- 7.6.3 Facilitate the inclusion of shopping facilities in mixed-use developments that serve the needs of local residents and workers. If necessary, consider utilizing financing techniques such as land write-downs and density bonuses.

- 7.8.1 Place the highest priority on attracting new development projects to Los Angeles which have the potential to generate a net fiscal surplus for the City.

- 7.8.3 Encourage mixed-use development projects, which include revenue generating retail, to offset the fiscal costs associated with residential development.

[25] *Id*., Chapter 7 (Economic Development).

[26] *Id.*

(2) Sherman Oaks-Studio City-Toluca Lake-Cahuenga Pass Community Plan

As noted in Chapter II of this Report, most of the Project Site is located on unincorporated land that is not included within the City of Los Angeles or its system of Community Plans. The area encompassed by the Project Site is situated within the Sherman Oaks-Studio-City-Toluca Lake-Cahuenga Pass Community Plan area, located northwest of downtown Los Angeles.[27] The Community Plan encompasses approximately 13.59 square miles and is generally bounded by the San Diego Freeway (I-405) on the west, the Ventura Freeway (US-101) on the north, Barham Boulevard on the east, and Mulholland Drive on the south. As its name implies, the Community Plan includes several distinct subareas, including Cahuenga Pass (a transition between downtown Los Angeles and Hollywood and the San Fernando Valley); the Universal City Metro Red Line Station on the west side of Lankershim Boulevard and immediately across the street from a main entrance to Universal City; the Studio City community; the Sherman Oaks community; and the Toluca Lake community.

The Community Plan designates the City of Los Angeles portion of the Project Site northeasterly of the Hollywood Freeway-Lankershim Boulevard intersection as Regional Center Commerce. This Community Plan designation is intended for facilities that are oriented toward entertainment services, hotels, restaurants and business offices, rather than retail trade. The Community Plan also states that a rapid transit system serving Universal City is desirable as part of its development as a Regional Center, at Height District No. 2 intensity.

Among the Community Plan's employment and economic goals, objectives and policies that are relevant to the areas of the Project located within the City of Los Angeles, or may become located within the City if the annexation contemplated by the Project is approved, are:

- Goal 3. Provide sufficient land for expansion of low intensity non-toxic producing industrial uses which create employment opportunities and have minimal adverse impacts on adjacent residential uses.

- Objective 3-1. To provide for existing and future industrial uses which contribute job opportunities for residents and which minimize environmental and visual impacts to the community.

[27] City of Los Angeles Department of City Planning, Sherman Oaks-Studio City-Toluca Lake-Cahuenga Pass Community Plan, adopted May 13, 1998, as amended (available at: http://cityplanning/lacity.org). (Hereinafter, "Community Plan").

- Policy 3-1.1 Designate lands for the continuation of existing entertainment industry uses and development of new production, post production, research and development uses which provide employment opportunities.

c. Southern California Association of Governments

The Southern California Association of Governments (SCAG) is the federally-designated Metropolitan Planning Organization for six Southern California counties (Ventura, Orange, San Bernardino, Riverside, Imperial, and Los Angeles). It is responsible for developing plans for transportation, growth management and hazardous waste management, and a regional growth forecast that is a foundation for these plans and regional air quality plans developed by the South Coast Air Quality Management District (SCAQMD). SCAG prepares several plans to address regional growth, including the 1996 Regional Comprehensive Plan and Guide (RCPG), the Southern California Compass Growth Vision, the 2007 Regional Housing Needs Assessment (RHNA), the 2008 Regional Transportation Plan (RTP), the 208 Regional Transportation Improvement Program (RTIP), and annual State of the Region reports to measure progress toward achieving regional planning goals and objectives.

The 1996 RCPG, which was adopted by SCAG in 1996,[28] is intended to serve as a framework to guide decision-making by local governments, assisting them in meeting federal and State mandates for growth management, mobility, and environmental standards, while maintaining consistency with regional goals regarding growth and changes through the year 2015 and beyond. Local governments are encouraged by SCAG to use the 1996 RCPG as the basis for their own plans and are required to discuss the consistency between the 1996 RCPG and proposed development projects that are deemed to be of "regional significance." Because the Project exceeds 500 dwelling units, it is considered to be "regionally significant," and thus subject to SCAG consistency review.[29]

The RCPG, like several other SCAG policy documents, divides the six-county region into 14 subregions. Some subregions consist of entire counties (e.g., Orange, San Bernardino, Imperial and Ventura Counties), while others include multiple sub-county areas (e.g., Riverside and Los

[28] SCAG, *Regional Comprehensive Plan and Guide*, March 1996 (available at: http://www.scag.ca.gov/rcp). (Hereinafter, "RCPG"). SCAG recently approved a 2008 update called the Regional Comprehensive Plan (RCP). Based on the year in which the Project's Notice of Preparation (NOP) was issued (i.e., 2007), the 1996 RCPG is the operative SCAG policy document used herein for determining Project consistency. However, some general implications of the 2008 RCP are also discussed later in this and subsequent Chapters.

[29] CEQA Guidelines, § 15206.

Angeles). The Project Site is located within the City of Los Angeles Subregion,[30] one of eight subregions in Los Angeles County.

The 1996 RCPG consists of subject matter chapters that contain goals, policies, implementation strategies, and technical data that support three overarching objectives for the region, including (1) improving the standard of living for all; (2) improving the quality of life for all; and (3) enhancing equity and access to government. The 1996 RCPG Chapters that are particularly relevant are the Growth Management and Economy Chapters.

The purpose of the Growth Management Chapter is to present forecasts which establish the socioeconomic context for the 1996 RCPG, particularly the Regional Mobility and Air Quality Chapters. It also addresses issues related to growth and land consumption by encouraging local land use actions that could ultimately lead to the development of an urban form that will help minimize development costs, save natural resources and enhance the quality of life in the region.[31]

Growth Management in the context of the 1996 RCPG does not mean curtailing growth through population, economic or land use policies. Instead, according to the 1996 RCPG, Growth Management means encouraging local land use actions which could ultimately lead to the development of an urban form that will help minimize development costs, save natural resources, and enhance quality of life in the region.

As part of a triennial process of updating the federally-mandated Regional Transportation Plan (RTP), SCAG is responsible for producing socioeconomic forecasts and developing, refining and maintaining macro and small-scale forecasting models. These forecasts are developed in close consultation with a Technical Advisory Committee comprised of local government and other public agencies, the California Department of Finance, County Transportation Commissions and other major stakeholders. The forecasts are developed in five-year increments through the year 2030. The forecast is relied upon for preparation of the RTP, the *Air Quality Management Plan* (AQMP), RTIP, and the RHNA. Consistency with the growth forecast, at the Subregional level, is one criterion that SCAG uses in exercising its federal mandate to review "regionally significant"

[30] This subregion includes the City of Los Angeles, the City of San Fernando, unincorporated Los Angeles County areas and property owned by the State and federal governments.

[31] RCPG, p. 3-1.

development projects for conformity with regional plans. The operative forecast is the one prepared for the 2004 RTP ("2004 Forecast"), which utilizes 2000 Census data as a baseline.[32]

The employment growth forecast for the City of Los Angeles Subregion is shown in Table III-2. It envisions about 313,000 additional jobs within the Subregion between 2008 and 2030.

Table III-2
SCAG Employment Forecast for the City of Los Angeles Subregion

Projection Year	Jobs
2000	1,781,855
2008[a]	1,952,236
2010	2,031,342
2020	2,157,226
2030	2,265,000
Change 2000-2008	
# Jobs	170,381
% Change	9.56%
Change 2008-2030	
# Jobs	312,764
% Change	17.06%

[a] Based on a straight-line interpolation between 2005 and 2010 forecast values.

Sources: SCAG 2004 RTP Regional Growth Forecast; HR&A, Inc.

Although SCAG's growth forecast for the Southeast San Fernando Valley is included within the forecast for the City of Los Angeles Subregion, and therefore has no official growth policy status,

[32] SCAG also recently approved a 2008 Regional Transportation Plan Update, which includes an updated regional growth forecast. Once again, the 2007 NOP date for the Project means that the 2004 RTP growth forecast is the official regional growth forecast that is applicable to this analysis.

Table III-3 shows the employment growth forecast for the Southeast San Fernando Valley for informational purposes.[33] It envisions 29,160 additional jobs between 2008 and 2030.

Table III-3
SCAG Forecast for Total Employment in the Southeast San Fernando Valley[a]

Projection Year	Sherman Oaks	No. Hollywood	Van Nuys	Total
2000[a]	51,045	37,158	77,054	165,257
2008[b]	55,814	40,957	81,989	178,760
2030[a]	65,195	48,245	94,480	207,920
2000-2008 Estimated Change				
# Jobs	4,770	3,798	4,935	13,503
% Change	9.3%	10.2%	6.4%	8.2%
2008-2030 Forecasted Change				
# Jobs	9,380	7,289	12,491	29,160
% Change	16.8%	17.8%	15.2%	16.3%

[a] HR&A estimates from SCAG 2004 RTP Small Area forecast for 2000 and 2030 for census tracts that correspond to the boundaries of the Sherman Oaks-Studio City-Toluca Lake-Cahuenga Pass, North Hollywood-Valley Village and Van Nuys-North Sherman Oaks Community Plan areas.
[b] Based on a straight-line interpolation between 2005 and 2010 SCAG forecast values.

Sources: SCAG; HR&A, Inc.

The Economy Chapter, which was updated in 2005, begins with the premise that a healthy regional economy is a prerequisite for successful implementation of regional planning policies. It proposes that increases in real (i.e., inflation-adjusted) per capita personal income be used to gauge progress toward the 1996 RCPG's goal of enhancing the regional standard of living.

The Economy Chapter maps the trends and changes that are affecting, and will continue to affect the economy of the region, including the characteristics of the region's economic base, structural changes in the regional economy following the early 1990s recession and reductions in defense spending, and threats to the region's continued economic competitiveness in light of these trends and changes. The Chapter presents the then-current SCAG's employment forecast to the year 2020, which has been superseded by the 2004 forecast to 2030.

The final section of the Economy Chapter outlines strategies for achieving regional economic prosperity and economic equity, focusing on the need for a regional economic

[33] Source: SCAG 2004 RTP Small Area Forecast, based on the sum of employment forecast values for the group of census tracts that correspond to the boundaries of the Southeast San Fernando Valley, per the Department of City Planning specification of census tracts in the Sherman Oaks-Studio City-Toluca Lake-Cahuenga Pass, North Hollywood-Valley Village and Van Nuys-North Sherman Oaks Community Plan areas.

development strategy. Strategies are described to reverse the recent decline in the "basic industries" component of the regional economy, to bolster the region's national and international competitiveness, and strategies to ensure that economic benefits are distributed across all populations in the region.

C. PROJECT IMPACTS

1. Threshold of Significance

As discussed in Chapter II, the following thresholds of significance are used with respect to employment:

- Would the Project cause growth (i.e., new employment), or accelerate development in an undeveloped area, that exceeds projected/planned levels for the year of Project buildout?
- Would the Project be incompatible with adopted local and regional employment growth policies, including jobs/housing balance, as set forth in the County's General Plan, the City's General Plan and the Southern California Association of Government's Regional Comprehensive Plan and Guide?

Operationally, employment growth impacts are assessed in terms of the Project's relationship to applicable adopted growth forecasts, economic development policies and certain other growth inducement issues, as discussed below.

2. Impact Analysis Methodology

The "economic impact" of a new development project refers to the incremental difference that its construction and operation make in terms of people employed, employee compensation paid and total value of goods and services circulating in the economy (i.e., "total economic output"). These impacts are generally classified into three categories, as follows:

- *Direct Impacts*. These include, for example, all jobs, compensation and spending resulting directly from the Applicant's substantial investment in development and construction of the Project. Direct impacts also include those net new jobs, compensation and spending that will occur on the Project Site once it is completed. These impacts represent the "first round" of impact on the County's economy.
- *Indirect Impacts*. Indirect impacts are created by business purchases of goods and services that are used as inputs to the construction process and the on-going operation of the completed Project, as well as successive rounds of spending to produce these goods and

services. This impact category includes, for example, jobs, compensation paid and total spending that result when construction contractors purchase materials, supplies and services, or when the Applicant or other business entities located in the completed Project purchase goods and services to supply, repair and maintain their operations.

- *Induced Impacts*. Induced impacts are created when direct and indirect employees spend their earnings for a variety of household goods and services, including convenience goods (e.g., supermarkets), comparison shopping goods (e.g., car dealers, household appliances and furniture stores) and consumer services (e.g., banks). These impacts typically occur near to where direct and indirect employee households reside, and therefore may be spread over a large geographic area.

In this Report, direct, indirect and induced impacts were estimated for employment, compensation (i.e., wages and benefits) and total economic output, for both the construction of the Project and its annual operation after construction of all proposed improvements are completed.

Construction employment, indirect and induced permanent employment, compensation and total economic output were estimated using the IMPLAN input-output model of the Los Angeles County economy. In form, input-output models resemble a giant matrix, or spreadsheet, which document how the expenditure to build a development, or its direct number of permanent jobs, ripples through all the sectors of the local economy. The analysis assumes that the inter-industry relationships that existed as of 2007, the most recent year for which IMPLAN data on the County economy are available, will remain essentially the same over the period of Project buildout. Direct permanent Project-related employment, following completion of its construction, was estimated by HR&A based on a detailed analysis of existing employment, which was then applied to the characteristics of the proposed Project, as discussed below.

3. Construction-Related Economic and Employment Impacts

Entering the Project's estimated construction cost as final demand into the relevant "new construction" sectors of the IMPLAN model produced an estimate of 16,559 jobs directly associated with the construction of the Project. This is the cumulative number of construction jobs that will be directly supported by the estimated $3.04 billion (in 2007 dollars) investment in Project construction over the entire buildout period. These direct jobs will support another 7,668 indirect jobs in a wide range of industries throughout the County resulting from purchases of construction-related supplies, goods and services. Compensation paid to direct and indirect workers will support another 7,170 induced jobs in the County economy. The details of the IMPLAN construction investment impacts are included in Appendix B.

4. Project Operational Economic and Employment Impacts

The construction of non-residential buildings creates the work space necessary to accommodate employment; it does not directly cause employment to occur. On the other hand, if there is an insufficient supply of non-residential building space to accommodate employment in an area, economic expansion of that area may be constrained. Thus, there is an indirect causal connection between the construction of new non-residential buildings and employment growth.

The businesses that will occupy newly constructed non-residential buildings of the type proposed by the Project may include one or more of the following businesses or uses:

- A newly established business enterprise or use that did not exist in any other space prior to construction of the new building;
- An existing business or use located in another city or region that decides to move its operations to the Project Site, or to establish a branch office where the new building is located; and/or
- An existing business or use already located in the Project vicinity that determines that the new building better serves its needs, due to physical amenities, location, potential for employment expansion or other factors;

Each type of business or use that occupies new non-residential building space at the Project can satisfy its need for employment by:

- Hiring from the existing supply of locally available, but unemployed residents of the area, or those who are just entering the labor force;
- Hiring a worker who is already employed at another job located in the area;
- Attracting new workers from outside of the area if the available supply is insufficient (e.g., lack of sheer numbers or a particular skill); or
- If it is a business or use relocating from outside the area, it may bring some workers from the previous location into the new one.

The economic and employment impacts of the completed Project are analyzed from several different, but related, perspectives. First, the analysis presents a projection of the number of direct jobs that will be associated with net new floor area constructed as part of the Project, using current employment density factors for similar uses, and the number of jobs on site and in the immediate vicinity of the Project Site in response to household spending demand for consumer goods and services from the Project's new residential component, using IMPLAN model results. Second, the analysis summarizes the scale of employee compensation and total economic output

impacts of direct Project employment. Next, the analysis summarizes the probable characteristics of on-site employees after completion of the Project, based on the characteristics of existing Project Site employees who they are likely to resemble. Fourth, the projected scale of Project employment is compared with applicable local and regional employment growth forecasts. Finally, the scale and character of Project employment is compared with applicable local and regional economic development and employment policies.

a. Scale of Project Employment Impacts

Using employment density factors for similar uses that currently exist at the Project Site, or its immediate vicinity, it is estimated that the Project will add 5,193 new on-site jobs once all proposed non-residential improvements have been constructed by the year 2030. Another 1,718 direct jobs in the immediate vicinity of the Project Site would be created due to new households spending for goods and services. Table III-4 presents an estimate of the number of direct new jobs for each of the Project's general land use categories.

Table III-4
Project Net New Direct Jobs

Land Uses	Net New Jobs	% On Site
Amphitheater	-	0.0%
Entertainment Retail	193	3.7%
Entertainment Use	561	10.8%
Studio	953	18.4%
Studio Office	1,133	21.8%
Office	1,329	25.6%
Hotel	424	8.2%
Neighborhood-Serving Retail	540	10.4%
Child Care Center	60	1.2%
Subtotal On-Site Direct Jobs	5,193	100.0%
Off-Site Direct Household Spending Jobs	1,718	
Total	**6,911**	

Source: Universal City Studios LLLP, L.P.; HR&A, Inc.

These Project employment estimates were derived as follows:

- *Entertainment Retail*. The Project includes 39,216 net new square feet of additional space to be used for an expansion of CityWalk entertainment-retail uses. Employment was estimated based on the average number of employees per square foot at CityWalk today (i.e., 4.93 employees per 1,000 gross square feet).

- *Entertainment*. The Project also includes 145,655 net new square feet to be used for relocated and expanded facilities that support the Universal Studios Hollywood studio tour. Employment for this land use category was estimated based on the average number of employees per square foot associated with tour facilities today (i.e., 3.85 employees per 1,000 gross square feet).

- *Studio*. The Project includes 307,949 net new square feet of technical/production types of studio-related uses. Project studio employment was estimated based on the average number of employees per square foot in studio uses at Universal City today (i.e., 3.10 employees per 1,000 gross square feet).

- *Studio Office*. The Project includes 422,326 net new square feet of office use associated with studio uses. Project studio employment was estimated based on the average number of employees per square foot in studio office uses at Universal City today (i.e., 2.68 employees per 1,000 gross square feet).

- *Office*. The Project includes 495,406 net new square feet of commercial office space. Project office employment was estimated based on the average number of employees per square foot in studio office uses at Universal City today (i.e., 2.68 employees per 1,000 gross square feet).

- *Hotel.* The Project also includes a new 500-room (450,000 square feet) first-class hotel. Hotel employment was estimated based on the average number of employees per square foot for hotels at Universal City today (i.e., 0.94 employees per 1,000 gross square feet).

- *Neighborhood-Serving Retail*. The Project will add new on-site community and neighborhood retail and services uses (180,000 square feet) to serve the needs of the households who will occupy the Project's 2,937 new dwelling units. Employment was estimated based on the characteristics of a grocery store-anchored neighborhood retail center (i.e., 3.00 employees per 1,000 gross square feet).

- *Child Care Center*. Finally, the Project also includes a 15,000 square foot child care center for on-site employee families. Child care center employment was estimated based on the average number of employees per square foot associated with the existing facilities (i.e., 4.00 employees per 1,000 gross square feet).

Direct jobs associated with new household spending were derived from IMPLAN, based on the number of units, and probable household incomes derived from very preliminary unit pricing schedules. This analysis results in 1,718 new direct jobs (see Appendix D for details).

Inasmuch as the Project also includes 180,000 square feet of neighborhood-serving retail and community uses, the household spending-related employment estimate reflects a deduction for the estimated 540 jobs associated with these uses to avoid any double-counting.

b. Worker Compensation and Total Economic Output Impacts

Employee earnings for each direct, indirect and induced job associated with constructing the Project were estimated using average earnings for each of the sectors of the regional economy which would benefit from construction of the Project. It is estimated that construction-related employee earnings (wages and benefits) in Los Angeles County will total about $1.46 billion (in 2007 dollars). About 55 percent of the earnings ($802.3 million) will be paid to workers directly involved in construction of the Project. The remaining 45 percent is attributable to indirect and induced development-related employment.[34]

Employee earnings associated with the ongoing operation of the Project (direct, indirect and induced employees within Los Angeles County) are estimated to total $646.4 million (in 2007 dollars) annually. About 51 percent of these earnings ($332.1 million) will go to employees directly located on the Project Site, and about $208.3 million of the remainder will go to employees whose jobs are indirectly created and induced by direct, on-site Project employment. Total earnings by off-site employees whose jobs are associated with net new household spending will total $106.0 million.

"Total economic output" refers to total economic activity associated with either the development or annual operation of the Project, including employee earnings, profits and indirect business taxes. The total one-time, economic output impact within Los Angeles County resulting from the construction of the Project is estimated to be $5.24 billion (in 2007 dollars). Construction of the Project represents about 58% ($3.04 billion) of this total.

The on-going operation of the Project's on-site improvements is expected to contribute an additional $1.56 billion (in 2007 dollars) annually to the Los Angeles County economy, including earnings by Project and other indirectly related and induced employees. Total economic output impacts for off-site employees whose jobs are associated with net new household spending will total $372.8 million. Thus, the total annual economic output impact of the entire Project is $1.93 billion (in 2007 dollars), in addition to the impacts of existing operations at Universal City today ($4.37 billion), for a cumulative total annual impact on the Los Angeles County economy of $6.30 billion.

c. Characteristics of Project Employees

As shown above in Table III-4, with implementation of the Project about two-thirds (65.8%) of the jobs will be associated with film, television and video related production and management activities. The Project's entertainment, retail (including retail and community services in the Mixed-Use Residential Area), child care and theme park jobs represent one-quarter of the net new jobs, and the new hotel jobs will represent about eight percent of the Project's total number of net new on-site jobs.

Because the types of jobs provided by development of the Project are expected to be very similar to those now present at the Project Site, the results from a survey of current employees and employees from the two hotels adjacent to the Project Site can be utilized to predict the characteristics of Project employees.[35]

Using the relationships between the existing distribution of employees by general NBC Universal Evolution Plan land use category and the distribution associated with the Project, it was possible to statistically adjust the results of the existing employee survey to account for the Project's slightly different mix of employees, including new hotel workers.

- *Job Status*. About 72 percent of Project employees are estimated to be full-time employees and 28 percent will work part-time.
- *Age*. The median age of Project employees is estimated to be 32 years old.
- *Household Size*. Median household size for Project employees is estimated to be three persons per household.
- *Employee's Household Wage Earner Status*. The Project employment profile will include 63 percent who are the primary wage earners in their households, and 37 percent who are secondary or other wage earners.
- *Housing Tenure*. About 54 percent of Project employee households are estimated to be renters and 46 percent owners.

d. Project Employment Consistency With Adopted Employment Growth Forecasts

Table III-5 shows that the additional 5,193 full-time and part-time jobs associated with the Project's net new non-residential floor area, plus 1,718 net new direct jobs associated with new

[34] The details for all of the IMPLAN projections in this subsection are included in Appendix B.
[35] See Appendix D for a summary of the employee survey methodology and results.

household spending, for a total of 6,911 new jobs, represent 3.2 percent of projected employment in the Southeast San Fernando Valley in 2030, and 23.7 percent of projected employment growth between 2008 and 2030. Table III-5 also shows that Project employment represents one-quarter (0.3%) of one percent of projected 2030 employment in the City of Los Angeles Subregion, and 2.2 percent of employment growth between 2008 and 2030. The Project is therefore consistent with SCAG's forecast for the City of Los Angeles Subregion.

Table III-5
Project Employment Compared With
Employment Estimates and Adopted SCAG Forecast

Projection Year	Jobs
Southeast San Fernando Valley 2030	207,920
Southeast San Fernando Valley 2008-2030 Growth	29,160
SCAG City of LA Subregion 2030[a]	2,265,000
SCAG City of LA Subregion 2008-2030 Growth	312,764
Project Direct Jobs[1]	**6,911**
Project Impacts	
Share of Southeast San Fernando Valley 2030	3.32%
Share of Southeast San Fernando Valley 2008-2010 Growth	23.70%
Share of Subregion 2030	0.31%
Share of Subregion 2008-2030 Growth	2.21%

[1] Includes direct on-site jobs in net new non-residential space and direct jobs related to new household spending that will be located off-site, but in the Project vicinity.

Sources: SCAG; HR&A, Inc.

e. Consistency With Adopted Plans and Policies

In addition to the foregoing assessment of Project consistency with adopted local and regional employment growth forecasts, the following sections provide a qualitative assessment of the degree to which the Project is consistent with economic development and employment policies in the County General Plan, City General Plan and SCAG's Regional Comprehensive Plan and Guide.

(1.) Consistency With the County General Plan

As noted above, the County General Plan includes several employment-related policies: encourage the location of employment opportunities in regional centers (**Policy #50**); encourage a strong diversified economy that will provide business opportunities, an adequate number of jobs for the County's labor force and an improved standard of living (**Policy #64**); and promote jobs within commuting range of urban residential areas (**Policy #65**). The Project is consistent with the County General Plan goals and policies discussed above in that it: (i) concentrates growth in an urbanized regional center, proximate to the Universal City Metro Red Line Station and the regional highway system; (ii) would support the creation of a number of new jobs (direct, indirect and induced; construction-related and permanent); and (iii) supports the growth and retention of one of the most important industries in the region's economic base.

The Economic Development Chapter of the County General Plan also includes an Economic Development and Revitalization Policy map. The Project Site is located in an area designated as "major industrial revitalization/intensification" area and is identified as a "major office/commercial job center." The jobs goal of the Chapter is to create jobs and increase incomes for County residents. The Project is consistent with these policies in that it would directly create 5,193 new job opportunities on-site, and 1,718 jobs in the immediate Project vicinity from new household spending, all in an area already designated for concentrated employment growth.

(2.) Consistency With the City of Los Angeles General Plan Framework Element

The Project: (i) concentrates growth in one of the City's urbanized regional centers, which also features the Universal City Metro Red Line Station; (ii) would support the creation of new jobs; (iii) would include a mix of retail, entertainment, hotel, commercial office, studio and residential uses, all in the same development (i.e., mixed-use); (iv) involves the expansion of relatively “clean” industry; and (v) is a type of project that will yield a net fiscal surplus for the City. Thus, the Project is consistent with the non-quantitative policies in the City’s General Plan Framework Element.

More specifically, the Project compares with each of the Framework Element’s economic development polices listed above, as follows:

- 7.2.2 Concentrate commercial development entitlements in areas best able to support them, including community and regional centers, transit stations, and mixed-use corridors. This concentration prevents commercial development from encroaching on existing residential neighborhoods.

The Project is located immediately adjacent to an area designated as a regional center in the Sherman Oaks-Studio City-Toluca Lake-Cahuenga Pass Community Plan, and adjacent to the Universal City Metro Red Line Station. The development of the Mixed-Use Residential Area at the eastern edge of the Project Site provides a buffer between the non-residential uses and the existing Blair Drive residential neighborhood. The Project is therefore consistent with this Framework Element objective.

- 7.2.3 Encourage new commercial development in proximity to rail and bus transit corridors and stations.

The Project is immediately adjacent to the Universal City Metro Red Line Station and Metro park-and-ride facility on Lankershim Boulevard, and therefore it is consistent with this objective.

- 7.2.5 Promote and encourage the development of retail facilities appropriate to serve the shopping needs of the local population when planning new residential neighborhoods or major residential developments.

The Mixed-Use Residential Area will include 180,000 square feet of neighborhood retail and other community-serving uses to serve the needs of the Project's 2,937 households. Therefore the Project is consistent with this policy.

- 7.2.6 Concentrate office development in regional mixed-use centers, around transit stations, and within community centers.

As noted above, the Project, including its net additional floor area for studio office and office space, will be located adjacent to a regional center with the Universal City Metro Red Line Station. The Project is therefore consistent with this Framework Element policy.

- 7.5.4 Proactively market Los Angeles to emerging industries to encourage them to locate within the City, with an emphasis on the attraction of environmentally-oriented and "clean" industries.

The entertainment industry and visitor-serving uses planned for the Project will help anchor these industry sectors in the region. The Project will also incorporate Universal's existing environmental management strategies, and implement feasible mitigation measures required to reduce environmental impacts. The Project is therefore consistent with this policy.

- 7.6.3 Facilitate the inclusion of shopping facilities in mixed-use developments that serve the needs of local residents and workers. If necessary, consider utilizing financing techniques such as land write-downs and density bonuses.

As noted above with respect to Policy 7.2.5, the Mixed-Use Residential Area will include retail, services and community facilities to serve the needs of the Project's 2,937 households. Therefore, the Project is consistent with this policy.

- 7.8.1 Place the highest priority on attracting new development projects to Los Angeles which have the potential to generate a net fiscal surplus for the City.

As demonstrated by analysis presented to the City outside this Draft EIR, the Project is projected to contribute approximately $7.7 million in additional recurring annual revenues and $11.8 million in one-time tax revenues, assuming the annexation scenario in which all proposed residences are constructed in the City and the proposed hotel is constructed in the County. Without annexation, in which case the hotel and a portion of the proposed residences would be constructed in the City, recurring City revenues would be somewhat less, but still significant. The Project is therefore consistent with this Framework Element policy.

- 7.8.3 Encourage mixed-use development projects, which include revenue generating retail, to offset the fiscal costs associated with residential development.

As noted above with respect to Polices 7.2.5 and 7.6.3, the Mixed-Use Residential Area will include retail, services and community facilities to serve the needs of the Project's 2,937 households. These non-residential uses, along with all of the other non-residential land uses planned as part of the Project, will help offset any marginal service costs associated with the Project. Therefore, the Project is consistent with this Framework Element policy.

(3.) Consistency with the Sherman Oaks-Studio City-Toluca Lake-Cahuenga Pass Community Plan

The Project's entertainment industry uses are part of a relatively "clean" industry that creates a variety of employment opportunities for City residents. The Project is therefore consistent with the applicable industrial land use goals, policies and objectives in the Community Plan, as listed above.

(4.) Consistency With SCAG's 1996 Regional Comprehensive Plan and Guide

The Project: (i) concentrates growth in one of the City's urbanized regional centers, which also features a the Universal City Metro Red Line Station; (ii) would support the creation of new jobs; and (iii) would include a mix of retail, entertainment, hotel, commercial office and residential uses, all in the same development (i.e., mixed-use). Thus, the Project is consistent with the non-quantitative policies of the 1996 RCPG's Growth Management Chapter.

Furthermore, the Project directly supports the growth and retention of the entertainment industry in southern California, which is consistent with other themes in the Economy Chapter. The 1996 RCPG identifies this industry as one of several "industrial clusters" that should be the focus of a regional economic development strategy. The 1996 RCPG identifies the entertainment and entertainment-related industries, which include the Project, as particularly important to the region's economic base because they combine relatively minimal demands on infrastructure and the environment with large and diverse expenditures and high-wage employment (in its film, television and commercial components), and they are on the brink of a technological transition that is closely linked with the State's computer and telecommunications industries. These advances have resulted in expansions by the film industry into themed entertainment and merchandising enterprises with yet additional multiplier potential for the regional economy.

The entertainment industry is one of the few sectors that are at once open to new entrants, funding, global competition, and new market development. At the same time, it is thoroughly integrated in the region, and dependent on rapid, constantly changing project-by-project interactions with other specialist firms and individuals located in Los Angeles County to develop products and services that earn premiums in world markets. A study commissioned by the motion picture and television industry points out that the motion picture, television and commercial production businesses, in particular, have other important, but less tangible positive impacts on the regional economy. These include significant innovations in management practices that will benefit other industries in the future, spurring technological development, contributing to a positive balance of national trade, and spurring innovations in architecture and environmental planning, among others.

The Project's variety of lower-wage jobs also provide important employment opportunities for students, part-time workers and low-skill workers, and provide a possible career path to higher-skilled, higher-wage positions within the entertainment industry.

It can therefore be concluded that the Project is consistent with the qualitative policies in the Economy Chapter of the 1996 RCPG.

5. Conclusions Regarding Significance of Impacts

The direct and total impacts of Project construction and operation are summarized in Table III-6.

Table III-6
Summary of Project Economic and Employment Impacts
in the Los Angeles County Economy
(all dollar amounts in 2007 $)

Impact Category	Direct Impact	Indirect Impact	Induced Impact	Total Impact[1]
ANNUAL OPERATIONS IMPACTS -- EXISTING DEVELOPMENT				
Employment	13,767	6,001	5,379	25,147
Employee Compensation	$ 632,549,033	$ 295,167,432	$ 218,913,406	$ 1,146,629,844
Total Economic Output	$ 2,665,522,574	$ 947,425,616	$ 760,011,168	$ 4,372,959,403
CONSTRUCTION IMPACTS -- GROSS NEW FLOOR AREA[2]				
Employment	16,559	7,668	7,170	31,397
Employee Compensation	$ 802,321,152	$ 364,104,462	$ 291,818,499	$ 1,458,244,115
Total Economic Output	$ 3,041,409,024	$ 1,184,295,741	$ 1,013,119,397	$ 5,238,824,155
ANNUAL OPERATIONS IMPACTS -- NON-RESIDENTIAL NET NEW FACILITIES[3]				
Employment	5,193	2,140	2,147	9,481
Employee Compensation	$ 332,129,669	$ 116,026,691	$ 92,276,703	$ 540,433,070
Total Economic Output	$ 865,565,700	$ 369,998,395	$ 319,272,082	$ 1,554,836,231
ANNUAL OPERATIONS IMPACTS -- MIXED-USE RESIDENTIAL AREA NEW HOUSEHOLD SPENDING[4]				
Employment	1,718	460	457	2,635
Employee Compensation	$ 64,351,854	$ 23,048,624	$ 18,592,224	$ 105,992,702
Total Economic Output	$ 228,489,888	$ 79,757,031	$ 64,547,359	$ 372,794,279
TOTAL ANNUAL OPERATIONS IMPACTS -- EXISTING + NET NEW FACILITIES + NEW HHLD. SPENDING				
Employment	20,678	8,601	7,983	37,262
Employee Compensation	1,029,030,556	434,242,747	329,782,333	1,793,055,616
Total Economic Output	3,759,578,162	1,397,181,042	1,143,830,609	6,300,589,913

[1] Totals may not sum precisely due to independent rounding.

[2] Hard construction only, not including professional fees and other "soft" costs or financing costs, which are reflected in indirect impacts in this analysis.

[3] From gross new floor area minus demolished floor area.

[4] From spending by households in 2,937 new dwelling units, assumed to be 60% condos and 40% apartments, and adjusted to: (1) avoid double-counting with new Mixed-Use Residential Area retail; and (2) account for retail spending in cities adjacent to Universal City.

Source: HR&A, Inc.

Table III-6 shows that:

- Construction of the Project is expected to directly support 16,559 jobs in Los Angeles County and 14,838 indirect/induced jobs in the County. In view of the recent slowdown in the regional residential construction industry sector, this number of job opportunities created by the Project would be considered a beneficial effect.

- Construction employee earnings associated with buildout of the Project are estimated to have a total compensation impact in the County economy of about $1.46 billion (in 2007

dollars), of which about 55 percent is attributable to direct construction jobs and the other 45 percent to indirect and induced construction-related jobs.

- Total economic output within Los Angeles County that is associated with construction of the Project is estimated to total $5.24 billion (in 2007 dollars), of which the Project's development cost represents just over one half (58%).

- Operation of the Project will directly create 6,911 net new direct jobs on-site and off-site due to the combination of net new non-residential uses and household spending related to the Mixed-Use Residential Area. As noted above, this number of jobs is within SCAG's employment forecast for the City of Los Angeles Subregion, and is therefore consistent with the 1996 Regional Comprehensive Plan and Guide, including its Growth Management and Employment Chapters. The Project is also consistent with the employment-related goals, objectives and policies in the County's General Plan and the City's General Plan.

- Operation of the Project and new household spending will also support 5,204 indirect and induced jobs elsewhere in Los Angeles County.

- Total employee earnings from on-going operation of the Project and new household spending are estimated to total about $646.4 million (in 2007 dollars) annually in Los Angeles County, with about 61 percent of this attributable to direct employees and 39 percent to indirect and induced employees.

- Regional economic output associated with on-going operation of the Project and new household spending is estimated to contribute about $1.93 billion annually to the Los Angeles County economy.

In sum, the Project would be consistent with applicable SCAG, County, and City employment growth plans and policies. The Project would (1) concentrate growth in an urbanized regional center, proximate to the Universal City Metro Red Line Station as well as numerous regional and local bus lines; (2) support the creation of new jobs (construction-related and permanent; direct, indirect, and induced); and (3) support the growth and retention of one of the most important industries in the region. The Project would result not only in a substantial number of new jobs and new economic activity, but it would also help to anchor the entertainment and tourism sector in Los Angeles County. The Project's variety of jobs would provide important employment opportunities for students, part-time and entry level workers, whose numbers are increasing and who are not likely to find sufficient employment in the region's new high technology sectors. The Project would also create career paths to higher-skilled, higher-wage positions in the increasingly multi-dimensional entertainment industry. In addition, the Project would constitute a new source of revenue for the City and County of Los Angeles, both of which

face on-going challenges in balancing revenues and the costs of the public's demand for services. Further, because the Project combines new housing with new jobs, it would not have an adverse impact on the ratio of jobs to households (i.e., "jobs-housing balance") in SCAG's City of Los Angeles Subregion. As the proposed Project would generate very notable fiscal surpluses to both the City and County under both the proposed Project as well as under conditions wherein the proposed annexation is not approved, the proposed Project would have a less-than-significant impact with respect to employment under both the annexation and no-annexation scenarios.

5. Other Growth Inducement Issues

While the Project's addition of new employment is consistent with various regional and local policies, it will not, in and of itself, foster new growth in the area by removing impediments to growth. As described in the land use section of the Draft EIR, the property surrounding the Project Site is already developed with single-family and multi-family homes, and commercial uses. All roads planned for the Project are planned primarily for internal circulation and would not open any large undeveloped areas for new use. Similarly, utility and other infrastructure upgrades planned for the Project are intended primarily to meet Project-related demand. The Project households' demand for commercial goods and services will be met by new retail, service and other resources included as part of the Project or already located within proximity of the Project Site. No new development specifically to meet the Project's scale of household or commercial demand would be needed. On the contrary, the Project's new non-residential and residential uses will help support the viability of existing businesses in the Project vicinity.

D. CUMULATIVE IMPACTS

As noted above, annual operation of the completed Project would generate direct employment on the Project Site as well as indirect and induced employment in the immediate vicinity of the Project Site. The sum of direct, indirect and induced Project employment is projected to total 12,115 full-time and part-time jobs across a wide range of industry sectors. Although these jobs would be spread over the entire County, even if they were concentrated in just the City of Los Angeles Subregion, the Project's total employment impact would be less than SCAG's employment forecast for the Subregion in 2030 (i.e., 2,265,000 jobs), and forecasted employment growth over the period 2008-2030 (312,754). Further development of studio and theme park uses would also help anchor the entertainment industry in the Los Angeles area, and therefore would not cause any growth shifts from, or to, other areas. The relatively small net additional retail floor area at CityWalk would not cause any change in current retail market dynamics. The additional neighborhood commercial and community-serving uses and facilities

proposed within the Mixed-Use Residential Area are intended to serve the new on-site residential population, and would therefore not alter existing retail and service market relationships.

Table III-7 shows the cumulative employment impact of total Project employment with all other forecasted employment growth for the City of Los Angeles Subregion between 2008 and 2030. The 2008-2030 forecasted employment growth is used as a proxy for "related projects," because the employment impacts of individual developments that may actually occur between 2008 and 2030 cannot be reasonably foreseen over the period of Project buildout. Table III-7 compares the resulting sum of total Project employment and the forecasted employment growth, with the employment forecasted in the Subregion for 2030. Table III-7 shows that: (1) the Project's total employment impact accounts for 0.53 percent of 2030 employment in the Subregion; (2) the Project's total employment impact accounts for 3.87 percent of the 2008-2030 employment growth forecast in the Subregion; and (3) cumulative employment (i.e., total Project employment plus forecasted 2008-2030 employment growth in the Subregion) represents 14.34% of 2030 employment in the Subregion.

Thus, the Project's incremental effect is not "cumulatively considerable" within the meaning of CEQA,[36] and hence its cumulative impact is less than significant.

[36] State CEQA Guidelines, *op. cit.*, § 15064(h)(1).

Table III-7
Total Project Employment Plus "Related Project" Employment Compared With the the Adopted SCAG Employment Growth Forecast for the City of Los Angeles Subregion

			Jobs
SCAG City of LA Subregion Employment, 2030[1]			2,265,000
SCAG City of LA Subregion Employment Growth, 2008-2030[1]			312,764
Total Project Employment[2]	Net New Non-Residential Floor Area	New Household Spending	
Direct Employment	5,193	1,718	6,911
Indirect Employment	2,140	460	2,600
Induced Employment	2,147	457	2,604
Total	9,481	2,635	12,115
"Related Projects" Employment[3]			312,764
Cumulative Employment (Project + "Related Projects" Employment)			324,879
Total Project Employment Share of Subregional Employment, 2030			0.53%
Total Project Employment Share of Subregional Employment Growth, 2008-2030			3.87%
Cumulative Employment Share of Subregional Employment, 2030			14.34%

[1] From Table III-2.
[2] From Table III-6.
[3] Equal to Subregional employment growth, 2008-2030, per Table III-2.

Sources: HR&A, Inc.

As discussed in this Section, the film and television production and distribution industry plays a vital role in the Los Angeles regional economy, and it is reasonable to expect that because it is anchored in Southern California generally, and in Los Angeles County and the City of Los Angeles Subregion in particular, the industry will continue to grow over time. Therefore, some portion of the Project's growth is likely to have already been included in the Subregional forecast, and therefore the analysis in Table III-7 probably overstates the magnitude of cumulative growth and its relationship to forecasted 2030 employment in the Subregion. It should also be recognized that a portion of the Project's job growth is a function of the synergistic relationships among entertainment industry and commercial businesses located on the Project Site. This means that some of the future job growth in the Subregion would only occur if additional development occurs at the Project Site.

E. Mitigation Measures

As Project impacts are less than significant, no mitigation measures are required or recommended.

F. Level of Significance After Mitigation

Neither the Project, nor the Project in combination with "related projects" would exceed SCAG's adopted employment forecast for the City of Los Angeles Subregion. The Project would

be consistent with adopted economic and employment policies of SCAG's RCPG, the Los Angeles County General Plan and the City of Los Angeles General Plan Framework Element and the Sherman Oaks-Studio City-Toluca Lake-Cahuenga Pass Community Plan. Therefore, the Project would not result in any significant and unavoidable environmental impacts with respect to employment.

IV. HOUSING IMPACTS

A. INTRODUCTION

This Chapter discusses the general housing market context and applicable City and regional housing policies. It then evaluates the Project's housing impacts against the applicable CEQA threshold, focusing on consistency between the Project and applicable housing growth policies and growth forecasts.

B. ENVIRONMENTAL SETTING: EXISTING AND FUTURE CONDITIONS WITHOUT THE PROJECT

1. Housing Scale and Characteristics

There were 155,647 dwelling units in the Southeast San Fernando Valley in 2006, according to the most recent Department of City Planning estimate, which accounted for about 11 percent of the Citywide housing stock and five percent of the Countywide housing stock. Compared with the City and County, the housing stock in the Southeast San Fernando Valley has a lower vacancy rate and a smaller proportion of units in detached single-family units. Current data on median home values and rents at this scale of geography are not available. The City's housing stock represents about 41 percent of the housing stock in the County, according to the Census Bureau's 2006 American Community Survey. Compared with the County, the City's housing stock features a higher vacancy rate, a higher proportion of multi-family housing, higher median home value, but lower median rent, as of 2006. City median household income was also lower than in the County in both 2000 and 2006. These relationships are shown in Table IV-1.

Table IV-1
Housing Characteristics in the County and City of Los Angeles and the Southeast San Fernando Valley, 2000 and 2006

Characteristic	County of Los Angeles				City of Los Angeles				Southeast San Fernando Valley			
	2000[a]		2006[b]		2000[a]		2006[b]		2000[a,c]		2006[b]	
	#	%	#	%	#	%	#	%	#	%	#	%
Total Units	3,270,909	100.0%	3,356,418	100.0%	1,337,706	100.0%	1,359,686	100.0%	150,984	100.0%	155,647	100.0%
Occupied Units	3,133,774	95.8%	3,172,032	94.5%	1,275,412	95.3%	1,273,880	93.7%	145,846	96.6%	150,468	96.7%
Owner-Occupied	1,499,744	45.9%	NA	NA	491,882	36.8%	NA	NA	49,598	32.8%	NA	
Renter-Occupied	1,634,030	50.0%	NA	NA	783,530	58.6%	NA	NA	96,316	63.8%	NA	
Vacancy Rate	4.2%		5.5%		4.7%		6.3%		3.4%		3.3%	
Units in Structure												
SF Detached	1,593,516	48.7%	1,687,550	51.6%	524,787	39.2%	544,810	40.1%	49,815	33.0%	50,639	32.5%
SF Attached	241,571	7.4%	214,918	6.6%	87,776	6.6%	79,513	5.8%	NA	NA	NA	NA
MF 2-4 Units	287,524	8.8%	278,811	8.5%	129,067	9.6%	125,070	9.2%	NA	NA	NA	NA
MF 5+ Units	1,091,677	33.4%	1,111,852	34.0%	586,956	43.9%	600,428	44.2%	NA	NA	NA	NA
Mobile Home/Other	56,621	1.7%	63,287	1.9%	9,082	0.7%	9,865	0.7%	238	0.2%	NA	NA
Median Price	$ 209,300		$ 574,100		$ 221,600		$ 614,300		NA		NA	
Median Monthly Rent	$ 704		$ 980		$ 672		$ 939		NA		NA	
Median Hhld. Income	$ 42,189		$ 51,315		$ 36,687		$ 44,445		NA		NA	

[a] 2000 US Census (available at: http://www.census.gov/popest/estimates.php).
[b] 2006 American Community Survey (available at: http://www.census.gov/acs/www).
[c] City Planning Department estimates (available at: http://cityplanning.lacity.org).

Sources: US Census Bureau; Dept. of City Planning; HR&A, Inc.

2. The General Housing Market and Policy Context

California, and especially its coastal metropolitan areas like Los Angeles, faces a deepening housing crisis, according to State officials.[37] Propelled by continuing strong employment and population growth, but with uneven and insufficient construction, the housing shortfall has left California with one of the tightest and most expensive housing markets in the nation. As a result, the State's rate of home ownership continues to be lower than in the nation as a whole. In addition, commuters in many urbanized areas face lengthy commutes between the homes they desire and can afford, and their place of work. And, many residents, particularly those with lower incomes, are forced to live in overcrowded conditions and pay disproportionately large shares of their household's income for housing costs. Most forecasters agree that these problems will worsen if the supply of housing is not expanded, particularly in the Los Angeles area.[38]

[37] State of California Department of Housing and Community Development, "California's Deepening Housing Crisis," March 4, 2008 (available on-line: http://www.hcd.ca.gov/hpd/hc030408.pdf).

[38] See, for example, Center for the Continuing Study of the California Economy, *Land Use and the California Economy: Principles for Prosperity and Quality of Life*, September 1998.

In 2000, the State forecasted that five million new homes will be needed between 1997 and 2020 to meet future population and household growth.[39] Meeting this scale of housing demand would require construction of about 220,000 homes each year, which is very high by historical standards and difficult to sustain across economic cycles. Since the late 1980s, actual construction has fallen far short of that annual average, even in 2004, when the largest number of new housing units was produced in a single year (212,960).

One consequence of an insufficient housing supply has been a dramatic increase in home prices, to the point that California now boasts the priciest housing market in the nation. The median price for existing housing in the State — i.e., the price in the exact middle between the highest and lowest prices — reached an historic peak of $594,530 in May 2007,[40] and only 26 percent of first-time homebuyers could afford the median-priced home in the second quarter of that year.[41] As of August 2009, after nearly two years of the most serious national recession since the 1930s, the median price for existing homes stood at $292,960, and even so, one-third of first-time buyers cannot afford the median-priced home.

There are many reasons for the housing production shortfall. Some of these include the increasing cost of land, particularly in the coastal areas where housing demand is strongest, and difficulties with the development approval process. General economic and residential financing circumstances also come into play.

The surge in home prices during the middle years of the current decade has contributed to sprawling development patterns which, in turn, contribute to worsening freeway congestion, related environmental problems, and social disruptions as workers spend increasing amounts of time commuting to work instead of with their loved ones and community. Another result of the price surge has been that increasing proportions of Californians live in overcrowded conditions. In 1980, 6.9 percent of households were classified as overcrowded; by 2000, the U.S. census reported overcrowding in 15 percent of California's households.

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[39] California Department of Housing and Community Development, "Raising the Roof- California Housing Development Projections and Constraints 1997-2020," May 19, 2000 (available on-line: http://www.hcd.ca.gov/hpd/hrc/rtr/index.html).

[40] California Association of Realtors median price data (available at: http://www.car.org/newsstand/newsreleases/augustsalesandprice/).

[41] California Association of Realtors historical quarterly affordability data (available at: http://www.car.org/economics/marketdata/ftbhai/).

Almost all future California population and household growth will occur in metropolitan areas, and most of that will occur in southern California. According to the State's 2000 forecast, Los Angeles County alone was projected to add more than two million people and one million households between 1997 and 2020.[42] As the largest city in the County, the City of Los Angeles will receive most of the County's future growth.

Thus, the housing demand-supply imbalance in the Los Angeles area is more severe than almost any other part of the state, except the San Francisco Bay Area. The median existing home price in Los Angeles County peaked at $605,300 in August 2007,[43] when only 23 percent of Los Angeles County first-time buyer households could afford to buy the median-priced home.[44] The overall homeownership rate in the County was only 54.4 percent in that year, second lowest among major U.S. metropolitan areas.[45] Although the median price for existing homes has declined to $339,980 as of August 2009, still only 56 percent of first-time buyers can afford the median-priced home.[46]

Another perspective on the scale of the housing supply problem in the Los Angeles area is provided by the Southern California Association of Governments (SCAG). Among its many regional planning responsibilities, SCAG is charged with calculating a target number of new housing that each city and county in southern California should plan to accommodate over a 7.5-year planning period in order to meet its regional "fair share" of future housing construction need. The 2007 SCAG *Regional Housing Needs Assessment* (RHNA)[47] assigned 112,876 units to the City of Los Angeles for the January 1, 2006-June 30, 2014 planning period, or an average of about 15,050 units per year. The unincorporated areas of Los Angeles County were assigned 57,176 units for the planning period, or 7,624 units per year. Following the onset of the national recession in December 2007, however, building permits for only 6,571 new single-family and

[42] *Raising the Roof*, *op. cit*., Chapter 2: California Housing Production Needs, 1997-2020.

[43] California Association of Realtors median price data, *op. cit*

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[44] California Association of Realtors historical quarterly affordability data, *op. cit*.

[45] U.S. Census Bureau, Housing Vacancies and Homeownership, Annual Statistics, Table 14 (available on-line: http://www.census.gov/hhes/www/housing/hvs/annual06/ann06t14.html). The national average for 2006 was 69% (Table 12).

[46] California Association of Realtors median price data and historical quarterly affordability data, *op. cit*.

[47] SCAG, "Final Regional Housing Need Allocation Plan - Planning Period (January 1, 2006 - June 30, 2014) for Jurisdictions within the Six-County SCAG Region," approved by the SCAG Regional Council on July 12, 2007, available online at: http://www.scag.ca.gov/Housing/pdfs/rhna/RHNA_FinalAllocationPlan071207.pdf. This RHNA was approved by the State Department of Housing and Community Development on September 7, 2007.

multi-family units were issued in the City in 2008,[48] and permits for only 13,704 units were issued in all of Los Angeles County.[49]

In 1999, the Los Angeles City Council passed a motion instructing the City's Housing Department to convene a task force that would make recommendations to the Mayor and Council on options to alleviate the shortage of safe, decent and affordable housing within the City of Los Angeles. The Housing Crisis Task Force was comprised of representatives from the City's Housing, Planning and Building and Safety Departments, City Housing Authority, Los Angeles Homeless Services Authority, as well as experts from the financial sector, the Chamber of Commerce, non-profit affordable housing developers, the Apartment Association of Los Angeles and other organizations.

The Report of the Task Force was published in 2000.[50] It found that, in addition to having the worst housing shortage in the nation, Los Angeles rents and purchase prices were becoming so out of reach that average income families, including those working in essential public services (i.e., school teachers, health care workers and public safety workers), were fleeing to distant suburbs, while prices in many of the City's single-family areas remain affordable only to high-income households. This inability to house important sectors of its workforce threatens the City's economic health, according to the Task Force Report.[51] (This situation became even more problematic in the years since publication of the Task Force Report. Between 2000 and May 2007, the median price of all homes sold in Los Angeles County — i.e., resale of existing homes and sale of newly constructed homes — increased by 176 percent).[52] Although the significant price reductions resulting from the national recession that began in December 2007 have improved the situation, still only 56 percent of first-time buyer households can afford to buy a median-priced home in August 2009.

One source of this problem, according to the Task Force, is local land use patterns enshrined in Community Plans that emphasize single-family housing and automobile

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[48] Source: City of Los Angeles Dept. of City Planning (available on-line at: http://cityplanning.lacity.org/DRU/HOMEDRU.cfm).

[49] U.S. Census Bureau estimates with imputation (available on-line at: http://censtats.census.gov/cgi-bin/bldgprmt/bldgdisp.pl).

[50] Los Angeles Housing Crisis Task Force, *In Short Supply: Recommendations of the Los Angeles Housing Crisis Task Force*, March 2000 (revised May 2000). (Hereinafter, "Task Force Report").

[51] *Id*., p. 12.

[52] Real Estate Research Council of So. California, *Real Estate and Construction Report, 2nd Quarter 2007*, p. 64.

transportation, which have decreased the supply of residential land available for development to nearly zero.[53] It notes that of approximately 125,000 acres (42%) of the City's land area devoted to residential uses, the vast majority (84%) is used for single-family development and only about 16 percent is used for multi-family development.[54] The Task Force Report further notes that of the potential residential development capacity available through current zoning, nearly all residential construction would have to occur on land already being used for residential or commercial buildings. The Report also observes that accommodating projected growth will require easing land use restrictions to permit more multi-family uses in mixed residential areas and on underutilized or obsolete commercial and industrial properties.[55]

In order to increase the housing supply and develop more affordable units, the Task Force Report states that the City must revise its zoning and building codes to create additional building sites, increase the number of possible units and reduce development costs.[56]

The Report also cites the need for a more flexible building envelope, removing barriers to mixed-use development, providing greater flexibility in lot sizes and continuing the reform of permit processing to make it easier for the public to file applications and obtain approvals.[57] It also calls on the City to work with the development community to find new ways to assemble sites in the City's underutilized commercial and industrial areas and with neighborhood groups to create more home ownership opportunities in selected areas using smaller lots.[58] In addition, it recommends rezoning more property for multi-family use, and facilitating mixed-use projects, noting that available vacant parcels for housing development often are not large enough for profitable development and that it is difficult and time consuming to assemble parcels into sites large enough for building.[59]

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[53] Task Force Report, pp. 11-12.

[54] *Id*., p. 11.

[55] *Id*., p. 12.

[56] *Id*., pp. 53-65 (Recommendations of the Land Use and Planning Subcommittee).

[57] *Id*., pp. 54-57.

[58] *Id*., pp. 55.

[59] *Id*., pp. 10 and 55-56.

The Task Force Report's recommendations favoring higher-density residential development on infill sites have been embraced by many City Departments, including Planning and Housing, as well as City of Los Angeles Mayor Villaraigosa.[60]

3. The Regulatory Context for Housing Impacts

This section summarizes the relevant housing policies of the City, County and SCAG that are relevant to a determination of significance relative to consistency with adopted housing policies.

a. City General Plan Framework Element

As noted in the previous Chapter, the City's General Plan addresses community development goals and policies relative to the distribution of land use, both public and private, including housing. To the extent that the Project's Mixed-Use Residential Area is annexed into the City of Los Angeles as proposed, the General Plan's housing policies apply to a consistency determination for the entire Mixed-Use Residential Area. In the event that the proposed annexation does not occur, the City's housing policies would apply to those portions of the Mixed-Use Residential Area currently within the City that would remain in the City.

The Framework Element, which was described in Chapter III, incorporates the adopted housing goals for the City from the 1993 Housing Element, as follows:

- An adequate supply of housing accessible to persons of all income levels;
- Sufficient ownership and rental housing to meet the City's needs;
- Housing production incentives for for-profit and non-profit developers of housing for low- and very-low income households;
- A reduction in barriers leading to more housing;
- Housing opportunities accessible to all City residents without discrimination, including groups with special needs;
- A City of residential neighborhoods that maintains a sense of community by conserving and improving existing housing stock;
- Housing, jobs, and services in mutual proximity; and

[60] Jim Newton, "Tall, Green, Vital: L. A. as Mayor Dreams It; Villaraigosa sees a city of parks, high-rise

- Energy efficient housing.

The Framework Element also provides policy direction for future amendments to the Housing Element, and establishes the following Framework Element housing goal:

- A distribution of housing opportunities by type and cost for all residents of the City.

b. City of Los Angeles Housing Element

The Housing Element of the City's General Plan identifies as its overall goal the creation of a city of livable and sustainable neighborhoods with a range of housing types and costs in mutual proximity to jobs, infrastructure and services.[61] The Housing Element contains several housing objectives for the City, as follows:

- Encourage production and preservation of an adequate supply of rental and ownership housing to meet the identified needs of persons of all income levels and special needs;
- Encourage the provision of housing with support services for persons with special needs (e.g., homeless, mental or physical disability, elderly, large families, and persons living with HIV/AIDS);
- Promote housing strategies which enhance neighborhood safety and sustainability, and provide for adequate population, development, and infrastructure and service capabilities within the City and each community plan area, or other pertinent service area;
- Encourage the location of housing, jobs, and services in mutual proximity;
- Accommodate a diversity of uses that support the needs of the City's existing and future residents;
- Develop, preserve, and enhance quality single- and multiple-family housing utilizing approved design standards which maintain the prevailing scale and character of the City's stable residential neighborhoods, and do not constrain affordable housing development; and

housing, a subway to the sea. Can the idea become reality?" Los Angeles Times, Feb. 19, 2006, Part A, p. 1.

[61] City of Los Angeles Department of City Planning, Housing Element, City of Los Angeles General Plan, adopted December 18, 2001 (available at: http://www.cityofla.org/PLN). (Hereinafter "Housing Element"). An updated Housing Element covering the period 2006-2014 was adopted by the City Council on August 13, 2008. The Housing Element adopted in 2001 is the operative standard for this analysis, because that was the Housing Element in effect when the Project's NOP was issued in 2007. However, the Project's relationship to the 2006-2014 Housing Element is also addressed in the analysis.

- Assure that new development is generally consistent with the character and scale of adjacent development and an adopted community vision.

c. Sherman Oaks-Studio City-Toluca Lake-Cahuenga Pass Community Plan

The overarching residential goal of the Community Plan is to provide for a safe, secure, and high quality residential environment for all economic, age, and ethnic segments of the community. Specifically, the Community Plan strives to designate specific lands to provide for adequate multi-family residential development; locate new housing in a manner which reduces vehicular trips and makes it accessible to services and facilities; preserve and enhance the varied and distinct residential character and integrity of existing single and multi-family neighborhoods; preserve and enhance neighborhoods with a distinctive and significant historical character; promote and insure the provision of adequate housing for all persons regardless of income, age, or ethnic background; and limit the intensity and density in hillside areas.

Existing residential land use patterns in the Community Plan area quite varied from subarea to subarea, and even within subareas (e.g., hillside versus flat lands), and, accordingly, range from very low (less than one unit per acre) to medium (up to 109 units per acre) density.

The Housing Chapter includes advisory strategies for bringing housing costs and decent shelter within reach of more households in order to support the economic health and social vitality of the region. Its goals include providing for decent and affordable housing for all people; an adequate supply and availability of housing; housing stock maintenance and preservation; and promoting a mix of housing opportunities regionwide.

d. County of Los Angeles Housing Element

Should the portion of the Mixed-Use Residential Area currently within the County not be annexed to the City of Los Angeles as proposed, that portion of that Area would remain in the County. The County General Plan's Housing Element includes the following goals:[62]

- A wide range of housing types sufficient to meet the needs of current and future residents, particularly persons and households with special needs, including but not limited to lower-income households, senior citizens, and the homeless.

[62] County of Los Angeles Department of Regional Planning, Housing Element 1998-2005, Los Angeles County General Plan, adopted October 31, 2001, Chapter 8. An updated version of the County of Los Angeles County Housing Element covering the 2008-2014 period was adopted by the Board of Supervisors on August 5, 2008. Here again, the operative standard for this analysis is the 1998-2005 Housing Element, because that was the Housing Element in effect when the Project's NOP was issued in 2007. However, the Project's impacts with respect to the 2008-2014 Housing Element are also addressed in the analysis.

- A housing supply that ranges broadly enough in price and rent to enable all households, regardless of income, to secure adequate housing.

- Neighborhoods that protect the health, safety and welfare of the community, and that enhance public and private efforts to maintain, reinvest in, and upgrade the existing housing supply.

- Accessibility to adequate housing, employment centers and availability of community services for all persons, without discrimination, in accordance with federal and state fair housing laws.

- An adequate supply of housing preserved and maintained in sound condition, located within neighborhoods that are safe, decent and healthful, and absent of excessive noise.

- An ongoing planning and monitoring function focused on housing that promotes the provision of affordable housing, and ensures the long-term availability of developments that provide affordable housing.

e. SCAG 2004 Southern California Compass Growth Vision

The *Southern California Compass Growth Vision Report* ("Compass Growth Vision"), published by SCAG in June 2004,[63] presents a comprehensive growth vision for the six-county SCAG region, as well as the achievements of the process for developing the growth vision. It details the evolution of the draft vision from the study of emerging growth trends and systematic modeling of the effects of alternative growth pattern scenarios on transportation systems, land consumption, and other factors.

The Report notes that population and household growth trends and existing housing conditions point to an unmet demand for a greater diversity of housing throughout the six-county region.[64] For example, while multi-family units account for a significant proportion of the existing overall supply (i.e., about 40 percent), multi-family buildings represent a smaller share of new residential construction. As a result, the demand for such housing (e.g., from immigrant populations, young adults and seniors) is outpacing multi-family production.[65]

[63] SCAG, *Southern California Compass Growth Vision Report*, June 2004.

[64] *Id*., p. 10.

[65] *Id*.

The Project's consistency with the principles of the Compass Growth Vision is addressed in Section IV.A.1 (Land Use and Planning) of the Project's Draft EIR.

f. SCAG 2007 Regional Housing Needs Assessment (RHNA)

The 2007 RHNA is a key tool for SCAG and its member governments to plan for this growth. The 2007 RHNA quantifies the need for housing within each jurisdiction between 2006 and 2014. Communities then plan, consider and decide how they will address this need through the process of completing the housing elements of their general plans. The 2007 RHNA does not necessarily encourage or promote growth, but rather allows communities to anticipate growth, so that they can grow in ways that enhance quality of life, and improve access to jobs, transportation and housing, without adversely impacting the environment. The 2007 RHNA is produced periodically by SCAG, as mandated by State law, to coincide with the region's schedule for preparing housing elements. It consists of two measurements of housing need: (a) existing need; and (b) future need.

The existing need assessment is based on data from the most recent U.S. Census to measure ways in which the housing market is not meeting the needs of current residents. These variables include the number of low-income households paying more than 30 percent of their income for housing, as well as severe overcrowding.

The future need for housing is determined primarily by the forecasted growth in households in a community, based on historical growth patterns, job creation, household formation rates, and other factors to estimate how many households will be added to each community over the projection period. The housing need for new households is then adjusted to account for an ideal level of vacancy needed to promote housing choice, maintain price competition and encourage acceptable levels of housing upkeep and repair. The 2007 RHNA also accounts for units expected to be lost due to demolition, natural disaster, or conversion to non-housing uses. The sum of these factors — household growth, vacancy need and replacement need — form the "construction need" assigned to each community. As noted above, the City of Los Angeles was assigned a 2007 RHNA of 112,876 units, and the unincorporated areas of the County of Los Angeles were assigned a 2007 RHNA of 57,176 units for the 2006-2014 planning period.

Finally, the 2007 RHNA considers how each jurisdiction might grow in ways that will decrease the concentration of low income households in certain communities. The need for new housing is distributed among income groups so that each community moves closer to the regional average income distribution.

g. SCAG Regional Growth Forecast

Based on SCAG's 2004 Forecast,[66] the City of Los Angeles Subregion had about 1.30 million households in 2000, and about 1.37 million in 2008.[67] By 2010, SCAG forecasts an increase to 1.39 households and 1.66 million by 2030. As shown in Table IV-2, households forecast from 2008 through 2030 for the City of Los Angeles subregion represents additional growth of about 295,000 additional households (+22.1%).

Table IV-2
SCAG Households Forecast for the City of Los Angeles Subregion

Projection Year	Households
2000	1,295,410
2008[a]	1,368,470
2010	1,393,635
2020	1,528,771
2030	1,663,000
Change 2000-2008	
# Households	73,060
% Change	5.64%
Change 2008-2030	
# Households	294,530
% Change	22.13%

[a] Based on a straight-line interpolation between 2005 and 2010 forecast values.

Sources: SCAG 2004 RTP Regional Growth Forecast ; HR&A, Inc.

In the Southeast San Fernando Valley, the Department of City Planning estimates there were about 146,000 households in 2000. It is estimated, based on review of Department of City Planning estimates for 2005 and the SCAG forecast for 2005 and 2010, that there are about 152,000 households in this area in 2008. By 2030, the SCAG forecast implies an increase to about

[66] As noted in Chapter III, an updated regional growth forecast was adopted in 2008, but the 2004 forecast is the operative standard for the Project.

[67] SCAG 2004 regional growth forecast projects "households," not housing units. As defined by the U. S. Census Bureau, "households" are equivalent to occupied housing units.

182,500 households, or 2008-2030 growth of about 30,800 additional households (+20.3%).[68] This forecast is shown in Table IV-3.

Table IV-3
City Households Estimates and SCAG Households Forecast for the Southeast San Fernando Valley

Projection Year	Sherman Oaks	No. Hollywood	Van Nuys	Total
2000[a]	38,198	50,946	56,697	145,841
2008[b]	40,135	53,047	58,534	151,715
2030[c]	48,463	63,870	70,208	182,541
2000-2008 Estimated Change				
# Households	1,937	2,101	1,837	5,874
% Change	5.1%	4.1%	3.2%	4.0%
2008-2030 Forecasted Change				
# Households	8,328	10,823	11,675	30,826
% Change	20.8%	20.4%	19.9%	20.3%

[a] Dept. of City Planning, based on 2000 U.S. census (available at: http://cityplanning.lacity.org).

[b] HR&A straight-line interpolation between 2005 estimate in the SCAG 2004 RTP Forecast, adjusted for the ratio of City 2005 estimate to SCAG 2005 forecast value, and 2010 forecast from SCAG 2004 RTP Small Area forecast, for census tracts that correspond to the boundaries of the Sherman Oaks-Studio City-Toluca Lake-Cahuenga Pass, North Hollywood-Valley Village and Van Nuys-North Sherman Oaks Community Plan areas.

[c] HR&A estimate from SCAG 2004 RTP Small Area forecast for 2030, adjusted for the ration of City 2005 estimate to SCAG 2005 forecast value, for census tracts that correspond to the boundaries of the Sherman Oaks-Studio City-Toluca Lake-Cahuenga Pass, North Hollywood-Valley Village and Van Nuys-North Sherman Oaks Community Plan areas.

Sources: Dept. of City Planning; SCAG; HR&A, Inc.

[68] Source: SCAG 2004 RTP Small Area Forecast, based on sum of household forecast values for the group of census tracts that correspond to the boundaries of the Southeast San Fernando Valley, per the Department of City Planning specification of census tracts in the Sherman Oaks-Studio City-Toluca Lake-Cahuenga Pass, North Hollywood-Valley Village and Van Nuys-North Sherman Oaks Community Plan areas.

4. Housing Characteristics of Current Project Site Employees

a. Mobility Characteristics

Inasmuch as Project employees are expected to closely resemble those of current employees, the housing and household characteristics of employees at the Project Site today can be used to predict the Project's probable indirect effects on housing. The following discussion focuses on the household mobility patterns of existing employees, which can be used to predict the likely geographic distribution of Project employee households, and hence, possible impacts on housing supply and demand.

As part of the 2008 survey, employees at Universal City listed the city and postal zip code in which they reside, and provided the same information about their immediately prior residence. In addition, employees indicated how long they had worked at Universal City, as well as how long they had resided at their current address. These data form the basis for the analysis of existing Universal City employee household mobility.

According to the survey results, almost all (99.7%) employees moved at least once during their job tenure at Universal City. But, only some of these moves result from taking a job at Universal City, as distinguished from all of the other myriad reasons that cause households to move from one location to another. In order to make this distinction, survey data on the length of time each employee had lived at his or her current address was compared to data on the amount of time that individual had been employed at Universal City. For those few employees who did not move since they took their job at Universal, the job opportunity at Universal had no impact on the housing location decision of those employee households. Among the remaining group of employee "movers," those who moved within one year of taking their job at Universal City are the most likely to have made a job-related decision about relocating their household, but only if the move was in a direction *closer* to Universal City, rather than farther away. Finally, in order to determine the potential impacts of employee household relocation on a city by city level, employee movement data was compared at that scale. In all, approximately six percent (842 employees) of the 13,767 employees at Universal City today reported that they had moved to a city closer to Universal City within one year of taking their job in Universal City. These are the employees who, as a result of employment opportunities at Universal City, arguably had some job-related effect on the local housing stock.

b. Household Characteristics of Job-Related Movers

The 2008 employee survey data indicate that the employee households who moved closer to Universal City within one year of the employee taking a job at Universal City have the following household characteristics:

- A median household size of slightly more than two persons.
- A higher likelihood that the employee at Universal is the primary wage earner in the household, compared to all employees.
- Somewhat more likely to reside in a rented dwelling than is the case for all employees, and less likely to reside in a home the household owns.

C. PROJECT IMPACTS

The proposed Project includes development of an urban, mixed-density residential community comprised of 2,937 multi-family dwelling units in the Mixed-Use Residential Area portion of the Project Site. The precise mix of units between condominiums and/or townhomes and apartments will depend on market circumstances at the time of construction. For purposes of this analysis, a mix of 60 percent condominiums/townhomes and 40 percent apartments has been assumed. There is no existing residential population located at the Project Site. The target market for the residential component of the Project is a mix of first-time buyers, empty-nesters, move-up buyers, entertainment industry professionals and young professionals. Most dwelling units will be organized in buildings with 50 or more units per structure. Unit sizes are expected to have an average of two bedrooms, but a specific mix has not yet been determined, and could also change over the course of development in response to market demand.

1. Threshold of Significance

Based on the criteria set forth in the City of Los Angeles 2006 CEQA Thresholds Guide, the Project would have a significant impact on housing if:

- It would cause growth or accelerate development in an undeveloped area that exceeds projected/planned levels for the year of projected occupancy/buildout, and that would result in an adverse physical change in the environment.
- It is not compatible with adopted local and regional housing growth policies, including jobs/housing balance, as set forth in the County's General Plan, the City's General Plan and the Southern California Association of Government's Regional Comprehensive Plan and Guide.

- It would introduce unplanned infrastructure that was not previously evaluated in the adopted Community Plan or General Plan; and
- It represents a substantial amount of growth to occur which would not occur without implementation of the Project.

Operationally, housing growth impacts are assessed in terms of the Project's relationship to applicable adopted growth forecasts, County and City housing policies and certain other growth inducement issues, as discussed below.

2. Construction-Related Housing Impacts

Due to the employment patterns of construction workers in southern California, and the operation of the market for construction labor, construction workers are not likely, to any significant degree, to relocate their households as a consequence of the job opportunities presented by the Project.

The construction industry differs from most other industry sectors in several important ways that are relevant to potential impacts on housing:

- There is no regular place of work. Construction workers commute to job sites that change many times in the course of a year. These often lengthy daily commutes are made possible by the off-peak starting and ending times of the typical construction work day.
- Many construction workers are highly specialized (e.g., crane operators, steel workers, masons), and move from job site to job site as dictated by the demand for their skills.
- The work requirements of most construction projects are also highly specialized and workers are employed on a job site only as long as their skills are needed to complete a particular phase of the construction process.

It is reasonable to assume, therefore, that Project-related construction workers will not relocate their households' places of residence as a consequence of working on the Project, and there will not be any significant housing impacts on City or Subregional housing due to Project construction.

3. Indirect Housing Impacts of Project Employees

Re-weighting the 2008 employee survey results to reflect the differences in the proportions of job categories between the Project and the existing situation at Universal City, and applying the household mobility pattern analysis described above, yields an estimate of the Project's probable indirect impacts on housing. It is estimated that about 10 percent (387 employees) of net new Project employee households are likely to move as a direct result of Project employment, and that about six percent (232 employees) would move to a city that is closer to the Project Site.

Compared with existing employee households who moved closer to Universal City after the employee took a job there, net new Project employee households who are expected to do likewise are predicted to have the following characteristics:

- Have slightly smaller median households.
- Have a higher propensity to reside in a rented dwelling.
- Slightly less likely for the employee to be the primary wage earner in his/her household.
- Slightly more likely to have a household income toward the lower end of the range than the upper end.

4. Project Dwelling Units Housing Impacts

a. Consistency With Adopted Growth Forecasts

As shown in Table IV-4, the Project's 2,937 housing units, plus an allowance for 232 indirect housing demand generated by Project employees, represent less than two percent (1.7%) of the households forecasted for 2030 in the Southeast San Fernando Valley and about 10 percent of the remaining household growth forecasted between 2008 and 2030.

As also shown in Table IV-4, the Project's households, assuming all planned units are occupied, plus indirect demand generated by the Project's direct new employees, represent about 0.2 percent of the households forecasted for 2030 in the City of Los Angeles Subregion, or about one percent of the remaining growth forecasted between 2008 and 2030. Therefore, the Project would not induce substantial housing growth, because it would meet a portion of forecasted housing need rather than exceeding the housing growth forecast for the Community Plan area, or SCAG's City of Los Angeles Subregion. The scale of household impact relative to the regional forecast remains the same whether or not the proposed annexation occurs and places the

Mixed-Use Residential Area entirely within the City of Los Angeles, because the Subregion incorporates the Project Site either way.

Table IV-4
Project Housing Compared With
Households Estimates and Adopted SCAG Forecast

Projection Year	Housing Units/ Households
Southeast San Fernando Valley 2030	182,541
Southeast San Fernando Valley 2008-2010 Growth	30,826
SCAG City of LA Subregion 2030	1,663,000
SCAG City of LA Subregion 2008-2030 Growth	294,530
Project Dwelling Units/Households	
Direct (on-site housing)	2,937
Indirect (employee demand)	232
Total	**3,169**
Project Impacts	
Share of Southeast San Fernando Valley 2030	1.74%
Share of Southeast San Fernando Valley 2008-2030 Growth	10.28%
Share of Subregion 2030	0.19%
Share of Subregion 2008-2030 Growth	1.08%

Sources: SCAG; HR&A, Inc.

b. Consistency With City, County and Regional Housing Policies

(1) Consistency With City of Los Angeles General Plan Housing Goals and Policies

Should the proposed annexation occur, the entire Mixed-Use Residential Area residential component will be within the City of Los Angeles. If the proposed annexation does not occur, a portion of the Mixed-Use Residential Area would remain in the County, and the areas currently in the City would remain in the City. In either case, the Project would be generally consistent with housing policies in the City's General Plan Framework Element and Housing Element. For example, by adding new units to the City's housing supply the Project will make an important incremental contribution to meeting the City's "fair share" of regional housing need in the 2007 RHNA that applies to the City's 2006-2014 Housing Element. The Project's mix of uses provides opportunities for co-location of jobs and housing. It will provide a high quality residential environment that adds to the range of housing opportunities across the household income spectrum, though not those with the lowest incomes. It will also provide new opportunities for home ownership for both individuals and families. And, through its design and implementation of environmental mitigation measures listed in the Draft EIR, the Project would help buffer existing residential neighborhoods from non-residential uses on the Project Site.

More specifically, the degree to which the Project is consistent with housing goals in the City's General Plan Framework Element is presented below:

Goal 1: An adequate supply of housing accessible to persons of all income levels.

The Project's 2,937 new multi-family units (or 1,178 units with no annexation) would assist the City of Los Angeles to address a chronic undersupply of housing in general, as discussed in the City's Housing Element and Task Force Report, and for multi-family units in particular. This would assist the City to meet its next 2007 RHNA for the 2006-2014 Housing Element planning period, which was recently adopted by SCAG and certified by the State Department of Housing and Community Development. Although the Project's specific unit pricing has not been established at this time, the Applicant is considering providing a range of housing opportunities including work force housing (i.e., rentals affordable at 200 percent of area median income). This may not, however, accommodate households in the lowest income categories. Thus, the Project is generally, but not entirely, consistent with this goal.

Goal 2: Sufficient ownership and rental housing to meet the City's needs.

The Project's 2,937 new multi-family units (or 1,178 with no annexation) will contribute to the City's overall housing needs, particularly for ownership housing. The Project will also include rental units. Thus, the Project is generally consistent with this goal.

Goal 3: Housing production incentives for for-profit and non-profit developers of housing for low- and very-low income households.

No incentives from the City to develop low- and very low-income housing as part of the Project are currently planned, and therefore this policy does not apply to the Project.

Goal 4: A reduction in barriers leading to more housing.

This is a goal related to actions to be taken by the City and therefore does not apply to the Project.

Goal 5: Housing opportunities accessible to all City residents without discrimination, including groups with special needs.

All Project housing units will be made available without discrimination against protected population groups, consistent with applicable federal and state fair housing laws. Therefore, the Project is consistent with this goal.

Goal 6: A City of residential neighborhoods that maintains a sense of community by conserving and improving existing housing stock.

The Project envisions creating a new Mixed-Use Residential Area with its own sense of community where no housing currently exists. Adjacent to the proposed Mixed-Use Residential Area are existing off-site residential neighborhoods (e.g., Hollywood Manor). Therefore, the Project would provide new housing and residential amenities adjacent to existing residential neighborhoods and would be consistent with this goal.

Goal 8: Housing, jobs, and services in mutual proximity.

The Project's mix of entertainment, retail, office, studio, neighborhood- and community-serving retail, child care center and other community facilities and housing is consistent with this goal.

Goal 9: Energy efficient housing.

The Project will be designed and constructed to comply with all applicable energy conservation standards. In addition, the Mixed-Use Residential Area has been accepted into the LEED-ND (Neighborhood Development) pilot project and will seek LEED-ND certification. The Project is therefore consistent with this goal.

The Project's consistency with City Housing Element objectives is as follows:

- *Encourage production and preservation of an adequate supply of rental and ownership housing to meet the identified needs of persons of all income levels and special needs.*

The Project's 2,937 new multi-family units (or 1,178 with no annexation) would contribute to meeting the City's overall housing needs for both ownership and rental housing. About 60 percent of the Project's new dwelling units would be condominiums and townhomes and about 40 percent would be rentals. As noted above, although the Project's specific unit pricing has not been established at this time, the Applicant is considering providing a range of housing opportunities including work force housing (i.e., rentals affordable at 200 percent of area median income). This may not, however, accommodate households in the lowest income categories. Thus, the Project is substantially, but not entirely, consistent with this objective.

- *Encourage the provision of housing with support services for persons with special needs (e.g., homeless, mental or physical disability, elderly, large families, and persons living with HIV/AIDS).*

The Project is not specifically planned to accommodate special needs housing, so this policy does not apply to the Project. It should be noted, however, that such households would not be prevented from occupying Project housing.

- *Promote housing strategies which enhance neighborhood safety and sustainability, and provide for adequate population, development, and infrastructure and service capabilities within the City and each community plan area, or other pertinent service area.*

The Project involves preparation and approval of a proposed Specific Plan through which the Project's land uses, infrastructure and services will all be specified and coordinated. The design of the Mixed-Use Residential Area includes a range of unit types and neighborhood-serving retail, services and community facilities, which will be designed with attention to public safety and environmental sustainability. The Project is therefore consistent with this objective.

- *Encourage the location of housing, jobs, and services in mutual proximity.*

The Project's mix of entertainment, retail, office, studio, community facilities and housing is consistent with this objective.

- *Accommodate a diversity of uses that support the needs of the City's existing and future residents.*

The new housing opportunities provided by the Project are intended to accommodate existing residents from the surrounding region seeking a more compact, urban, mixed-use residential experience that also includes commercial opportunities (e.g., neighborhood-serving retail uses), as well as new residents who may move into the area. The Project is therefore consistent with this objective.

- *Develop, preserve, and enhance quality single-and multiple-family housing utilizing approved design standards which maintain the prevailing scale and character of the City's stable residential neighborhoods, and do not constrain affordable housing development.*

The Project envisions creating a new Mixed-Use Residential Area with its own sense of community where no housing currently exists, so this objective does not directly apply to the Project. The Project's housing component will be developed adjacent to an existing residential neighborhood, and would not have an adverse impact on development of affordable housing.

- *Assure that new development is generally consistent with the character and scale of adjacent development and an adopted community vision.*

On an overall basis, the proposed Project's new amphitheater, entertainment retail, entertainment, studio, studio office, office, hotel, neighborhood-serving retail, and other commercial uses would provide new jobs, shopping, dining, and other attractions that would reduce the need for existing Project area residents, employees, and hotel guests to travel to other areas of the City for these amenities. The scale of development within the proposed Mixed-Use Residential Area represents a significant adverse impact with regard to a portion of the neighboring Hollywood Manor community (approximately 13 homes); mitigation measures are proposed to address this impact in Sections IV.A.2 (Land Use - Physical) and IV.D (Visual Resources) of the Draft EIR. Both distance as well as physical buffers (e.g., roadways, the Hollywood Freeway, the Lakeside Golf Club) would serve to continue to separate the Project Site from most other surrounding land uses to the north, east, and south such that the proposed Project would not impact the character, scale, or vision of these communities. The Project is consistent with this objective.

The 2006-2014 Housing Element is organized into four goals and their related objectives. The Project's consistency with this new Housing Element is as follows:

- *Goal 1: A City where housing production and preservation result in an adequate supply of ownership and rental housing that is safe, healthy, sanitary and affordable to people of all income levels, races, ages, and suitable to their various needs.*

Goal 1 is essentially the same as in the 1998-2005 Housing Element, and therefore the discussion above with respect to Goal 1 in that Housing Element also applies to the 2006-2014 Housing Element. The preservation and regulatory procedural barriers objectives do not specifically apply to the Project.

- *Goal 2: A City in which housing helps to create safe, livable and sustainable neighborhoods.*

The Project includes formal security measures and private security staff, and informal crime-reduction design strategies, to help ensure a same residential environment. As a mixed-use, multiple-tenure type development that includes jobs and access to transit, and with its attention to environmental sustainability, the Project is consistent with all of the objectives in this goal.

- *Goal 3: A City where there are housing opportunities for all without discrimination.*

This goal does not specifically apply to the Project. However, the Applicant will comply with all Federal, State and local laws and regulations to avoid and prevent discrimination in access to housing.

- *Goal 4: A City committed to ending and preventing homelessness.*

This goal does not specifically apply to the Project.

(2) Consistency With the Sherman Oaks-Studio City-Toluca Lake-Cahuenga Pass Community Plan Housing Goals, Objectives and Policies

By adding new units to the City's housing supply under the annexation scenario, the Project will provide a new residential community that adds to the range of housing opportunities. It will also provide new opportunities for home ownership and rental housing for both individuals and families. And, through its design and implementation of environmental mitigation measures listed in the Draft EIR, the Project would reduce environmental impacts from the Project on existing residential neighborhoods that surround the Project Site.

(3) Consistency With County of Los Angeles Housing Element Goals

If the portion of the Mixed-Use Residential Area currently within the County is not annexed to the City and remains within the County, the Project's housing would also be consistent with both the 1998-2005 and 2008-2014 County Housing Element goals for many of the same reasons it is consistent with City Housing Element goals and objectives.

More specifically, the Project's degree of consistency with 1998-2005 County Housing Element goals is as follows:

Goal 1: A wide range of housing types sufficient to meet the needs of current and future residents, particularly persons and households with special needs, including but not limited to lower-income households, senior citizens, and the homeless.

The Project's 1,759 new multi-family units that would be developed within the County under a no-annexation scenario would contribute to the County's overall need for housing to accommodate existing and future households. About 60 percent of the Project's new dwelling units would be condominiums and townhomes and about 40 percent would be rentals. As noted above, although the Project's specific unit pricing has not been established at this time, the Applicant is considering providing a range of housing opportunities including work force housing (i.e., rentals affordable at 200 percent of area median income). This may not, however, accommodate households in the lowest income categories. Thus, the Project is generally, but not entirely, consistent with this goal.

Goal 2: A housing supply that ranges broadly enough in price and rent to enable all households, regardless of income, to secure adequate housing.

About 60 percent of the Project's new dwelling units would be condominiums and townhomes and about 40 percent would be rentals. Although the Project's specific unit pricing

has not been established at this time, the Applicant is considering providing a range of housing opportunities including work force housing (i.e., rentals at 200 percent of area median income). This may not, however, accommodate households in the lowest income categories. Thus, the Project is substantially, but not entirely, consistent with this goal.

> *Goal 3: Neighborhoods that protect the health, safety and welfare of the community, and that enhance public and private efforts to maintain, reinvest in, and upgrade the existing housing supply.*

The Mixed-Use Residential Area is entirely new development within the context of a Specific Plan that will specify a wide range of development and design standards governing both the private and public areas of the Project Site. The development standards established within the Specific Plan would serve to protect the health, safety, and welfare of the community. The proposed residential development represents a very substantial scale of private investment in this part of the County, and it would expand and upgrade the County's housing supply. The Project is therefore consistent with this goal.

> *Goal 4: Accessibility to adequate housing, employment centers and availability of community services for all persons, without discrimination, in accordance with federal and state fair housing laws.*

The Project's mix of housing, retail, entertainment, office, studio, hotel and neighborhood- and community-serving facilities will be accessible to all users, consistent with applicable federal and state fair housing laws. The Project is consistent with this goal.

> *Goal 5: An adequate supply of housing preserved and maintained in sound condition, located within neighborhoods that are safe, decent and healthful, and absent of excessive noise.*

Again, the Mixed-Use Residential Area is entirely new development within the context of a Specific Plan that will specify a wide range of development and design standards governing both the private and public areas of the Project Site. Development in accordance with the standards set forth in the proposed Specific Plan would result in a safe, decent and healthful environment. The Project is consistent with this goal.

> *Goal 6: An ongoing planning and monitoring function focused on housing that promotes the provision of affordable housing, and ensures the long-term availability of developments that provide affordable housing.*

This goal and its related objectives are directed toward actions to be taken by the County itself, and therefore do not directly apply to the Project.

The County's 2008-2014 Housing Element is organized into nine goals and their related policies. The Project's consistency with this new Housing Element is as follows:

Goal 1: A wide range of housing types in sufficient supply to meet the needs of current and future residents, particularly persons with special needs, including but not limited to low income households, seniors, persons with disabilities, single-parent households, the homeless and at-risk homeless, and farmworkers.

Goal 1 is essentially the same as in the 1998-2005 County Housing Element, and therefore the discussion above with respect to Goal 1 in that Housing Element also applies to the 2008-2014 County Housing Element.

Goal 2: Sustainable communities with access to employment opportunities, community facilities and services, and other amenities.

The Project involves preparation and approval of a proposed Specific Plan through which the Project's land uses, infrastructure and services will all be specified and coordinated. The design of the Mixed-Use Residential Area includes a range of unit types and neighborhood-serving retail, services and community facilities, which will be designed with attention to public safety and environmental sustainability. Moreover, the Project mixes entertainment, retail, office, studio, neighborhood- and community-serving retail, and other community facilities and housing. The Project is therefore consistent with this goal.

Goal 3: A housing supply that ranges broadly in housing costs to enable all households, regardless of income, to secure adequate housing.

Goal 3 is essentially the same as Goal 2 in the 1998-2005 County Housing Element, and therefore the discussion above with respect to Goal 2 in that Housing Element also applies to the 2008-2014 County Housing Element.

Goal 4: A housing delivery system that provides assistance to low and moderate income households and those with special needs.

This goal and its related policy are directed towards actions to be taken by the County itself, and therefore it does not directly apply to the Project.

Goal 5: Neighborhoods that protect the health, safety, and welfare of the community, and enhance public and private efforts in maintaining, reinvesting in, and upgrading the existing housing supply.

Goal 5 is essentially the same as Goal 3 in the 1998-2005 County Housing Element, and therefore the discussion above with respect to Goal 3 in that Housing Element also applies to the 2008-2014 County Housing Element.

Goal 6: An adequate supply of housing preserved and maintained in sound condition, located within safe and decent neighborhoods.

Goal 6 is essentially the same as Goal 5 in the 1998-2005 County Housing Element, and therefore the discussion above with respect to Goal 5 in that Housing Element also applies to the 2008-2014 County Housing Element.

Goal 7: An affordable housing stock that is maintained for its long-term availability to low and moderate income households and those with special needs.

Goal 7 is a new goal concerning preservation of existing affordable housing in the Coastal Zone, which does not apply to the Project, because it does not include existing affordable units.

Goal 8: Accessibility to adequate housing for all persons without discrimination in accordance with Federal and State fair housing laws.

Goal 8 is essentially the same as Goal 4 in the 1998-2005 County Housing Element, and therefore the discussion above with respect to Goal 4 in that Housing Element also applies to the 2008-2014 County Housing Element.

Goal 9: Planning for and monitoring the long-term affordability of sound, quality housing.

Goal 9 is similar to Goal 6 in the 1998-2005 County Housing Element, and therefore the discussion above with respect to Goal 6 in that Housing Element also applies to the 2008-2014 County Housing Element.

(4) Consistency With SCAG Housing Policies

In addition to being consistent with SCAG's household growth forecast for the City of Los Angeles Subregion, the Project would generally be consistent with the housing policies in SCAG's 1996 Regional Comprehensive Plan and Guide. For example, it provides opportunities for a range of housing choices by providing a new, high-quality residential development that provides a spectrum of housing prices. And, as noted above, it makes an important contribution to expanding the regional housing supply at an infill location near existing jobs, community resources and infrastructure.

More specifically, the degree to which the Project is consistent with policies included in the Growth Management Chapter of the 1996 RCPG relevant to population and housing is presented below.

> *3.01 The population, housing and jobs forecasts, which are adopted by SCAG's Regional Council and reflect local plans and policies, shall be used by SCAG in all phases of implementation review.*

The Project is located in the City of Los Angeles Subregion. As presented in the above analysis, as well as the preceding Chapter III analysis of Project employment, and the subsequent Chapter V analysis of Project's population, the Project falls within all SCAG forecasts. The Project's 5,193 on-site jobs represents 1.5 percent of forecasted employment growth for the Subregion; its 2,937 new multi-family units represent approximately one percent of forecasted household growth; and the combined direct household population and indirect employment-related population impact of 7,146 persons represents about 2.2 percent of SCAG's population forecast for the Subregion. The Project would be consistent with this policy.

> *3.04 Encourage local jurisdictions' efforts to achieve a balance between the types of jobs they seek to attract and housing prices.*

The Project would add 2,937 new market rate units for individuals and families to the Universal City area, one of the region's designated employment centers. According to the SCAG regional growth forecast, the Los Angeles Subregion's ratio of jobs to households (1.38) currently exceeds the regional ratio (1.34), and it is therefore considered "jobs rich and housing poor." By 2030, the SCAG forecast indicates the Subregional ratio will improve to 1.36, slightly "housing rich," compared to the region in that year (1.36 vs. 1.38). While the Project would add jobs at a rate that exceeds the Subregional average, the jobs are not of a sufficient magnitude to alter the forecasted subregional jobs/housing balance ratio. The Project would be consistent with this policy.

> *3.17 Support and encourage settlement patterns which contain a range of urban densities.*

The Project would be an infill development that contributes to satisfying an unmet need for infill housing proximate to employment; a policy that is contained in the SCAG 1996 RCPG. Consistent with the AQMP and 1996 RCPG, the City's Housing Crisis Task Force Report, promulgated in 2000, recommended the reconsideration of low-density, single-family land use designations because they contribute to the creation of the region's housing crisis and attendant adverse environmental impacts such as air pollution from urban sprawl and automobile commuting trips.

As previously discussed, the Project's households also represent about 0.2 percent of the households forecasted for 2030 in the City of Los Angeles Subregion, or about one percent of the household growth forecasted between 2007 and 2030. Therefore, the Project would not induce substantial housing growth, because it would meet a portion of the forecasted need, rather than exceeding the household growth forecast for SCAG's City of Los Angeles Subregion.

The Project's 2,937 housing units and an indirect housing demand allowance of 232 units from net new Project employees, assuming these units are all occupied, would represent less than two percent of the households forecast for 2030 in the Southeast San Fernando Valley and approximately 11.8 percent of the remaining household growth forecast between 2006 and 2030.

Furthermore, the Project would address housing needs that are currently unmet and are contributing to urban sprawl and associated automobile trip emissions in contravention of the 1996 RCPG and AQMP. The Project would bring more housing units closer to major employment centers. This additional density would be located in an area currently served by public transit, and would be located near existing transportation corridors. The Project's proposed multi-family units provide housing closer to jobs at densities that are consistent with the VMT reduction strategies of the 1996 RCPG and AQMP. The Project would be consistent with this policy.

> *3.24 Encourage efforts of local jurisdictions in the implementation of programs that increase the supply and quality of housing and provide affordable housing as evaluated in the 2007 Regional Housing Needs Assessment (RHNA).*

As proposed, the Project's 2,937 new multi-family units would assist the City of Los Angeles to address a chronic undersupply of housing in general, as discussed in the City's Housing Element and Task Force Report (discussed above), and for multi-family units in particular. This would assist the City to meet its next RHNA for the 2006-2014 Housing Element planning period, which was recently adopted by SCAG. Should the proposed annexation not be implemented, the Project would also assist the County to meet its RHNA objective. Although the Project's specific unit pricing has not been established at this time, the Applicant is considering providing a range of housing opportunities including work force housing (i.e., rentals at 200 percent of area median income). This may not, however, accommodate households in the lowest income categories. Thus, the Project is generally, but may not be entirely, consistent with this policy.

The degree to which the Project is consistent with the goals included in the Housing Chapter of SCAG's 1996 RCPG is as follows:

Provide for decent and affordable housing for all people.

The Project would increase the housing supply in the City of Los Angeles Subregion by 2,937 market rate, multi-family units. The Project will provide new home ownership and rental opportunities for a range of households. Although the Project's specific unit pricing has not been established at this time, the Applicant is considering providing a range of housing opportunities including work force housing (i.e., rentals at 200 percent of area median income). This may not, however, accommodate households in the lowest income categories. Thus, the Project may not be entirely consistent with this goal.

Provide an adequate supply and availability of housing.

As discussed above, the Project would add 2,937 units to the City's or County's supply of housing, depending on whether or not the proposed annexation is implemented, consistent with SCAG's regional growth policies and forecasts for the City of Los Angeles Subregion and the Southeast San Fernando Valley, as well as the City and County Housing Element policies for meeting housing demand. The Project would be consistent with this goal.

Promote a mix of housing opportunities regionwide.

The Project would expand the supply of housing available in the City of Los Angles Subregion by adding 2,937 units. It would also expand the mix of housing, by offering multi-family housing opportunities in a variety of building types and styles. The Project would be consistent with this goal.

Jobs-Housing Balance

By adding both new jobs and new housing, the Project would have a neutral numerical impact on what is projected to be an improving subregional balance between the number of households and number of jobs.[69] As shown in Table IV-5, the City of Los Angeles Subregion is currently considered by SCAG to be "jobs rich/housing poor." This is because the ratio between its current and number of jobs and households (1.38) exceeds the comparable ratio for the region as a whole (1.34), which is considered to be "balanced" overall. By 2030, with development of proportionally more housing than jobs, the Subregion will be somewhat more "housing rich" than the region (1.36 vs. 1.38). While the Project would add jobs at a rate that exceeds the Subregional

[69] This concept of "jobs-housing balance," and some of the difficulties in measuring it and applying it as a regional strategy, are discussed in the Growth Management Chapter of SCAG's 1996 Regional Comprehensive Plan and Guide (pp. 3-12 to 3-13). See also, Ed Hamilton, Francine Rabinovitz, John H. Alschuler, Jr. and Paul J. Silvern, "Applying the Concept of Jobs-Housing Balance," *Urban Land*, October 1991, pp. 15-18. Nevertheless, the general concept of achieving better jobs-housing balance remains a fundamental part of SCAG growth management strategies, including the 2004 Compass Growth Vision, and related air quality policies.

average, the jobs are not of a sufficient magnitude to alter the forecasted subregional jobs/housing balance ratio. The Project is therefore consistent with this 1996 RCPG goal.

Table IV-5
Jobs Housing Balance Impacts of the NBC Universal Evolution Plan in the City of Los Angeles Subregion

	2005	2010	2020	2030
Pre-Project Conditions				
Employment	1,833,577	2,031,342	2,157,226	2,265,000
Households	1,330,724	1,393,635	1,528,771	1,663,000
Jobs-Housing Balance	1.38	1.46	1.41	1.36
Project Conditions				
Employment (Direct Jobs)[1]				6,911
Households (100% occupied)				2,937
With Project				
Employment				2,271,911
Households				1,665,937
Jobs-Housing Balance				1.36
Region				
Employment	8,368,607	9,456,903	10,614,346	10,038,316
Households	6,260,842	6,758,353	7,773,287	7,259,762
Jobs-Housing Balance	1.34	1.40	1.37	1.38

[1] Includes direct on-site jobs in net new non-residential space and direct jobs related to new household spending that will be located off-site, but in the Project vicinity.

Sources: SCAG; HR&A, Inc.

As also noted above, SCAG has adopted a 2008 Regional Comprehensive Plan (RCP). For the reasons described above, the Project's Mixed-Use Residential Area would also be consistent with the housing-related goals in the 2008 RCP, including creating areas of mixed-use development and walkable, "people-scaled" communities; providing new housing opportunities with building types that respond to the region's changing demographics; targeting growth in housing, employment and commercial development within walking distance of existing and planned transit; and injecting new life into under-used areas by creating vibrant new business districts, redeveloping old buildings and building new businesses and housing on vacant land.[70]

[70] SCAG, *2008 Regional Comprehensive Plan*, n.d., p. 17.

c. Other Growth Inducement Issues

While the Project's addition of new housing units is consistent with various regional and local policies, it will not, in and of itself, foster new growth in the area by removing impediments to growth. As described in the land use section of the Draft EIR, the property surrounding the Project Site is already developed with single-family and multi-family homes. Roads planned for the Project are primarily for internal circulation and would not open any large undeveloped areas for new use. Similarly, utility and other infrastructure upgrades planned for the Project are intended primarily to meet Project-related demand. The Project households' demand for commercial goods and services will be met by retail, services and community facilities planned for the Mixed-Use Residential Area, and by existing retail, service and other resources already located within proximity to the Project Site. No new development specifically to meet the Project's scale of household demand would be needed. On the contrary, the Project's new household demand will help support the viability of existing businesses in the Project vicinity.

5. Conclusions Regarding Significance of Impacts

As to the first significance threshold with respect to housing, the Project's proposed 2,937 dwelling units could provide about 12 percent of the households forecasted for the Southeast San Fernando Valley between 2008 and 2030, according to SCAG's regional growth forecast. This would occur without the displacement of any existing households and without the demolition of any existing rent-stabilized housing stock. The Project also represents about one percent of the growth in SCAG's household forecast for the City of Los Angeles Subregion between 2008 and 2030.

To the extent that the Mixed-Use Residential Area is annexed into the City of Los Angeles, the Project would assist the City in meeting its fair share of regional housing need, improve subregional jobs-housing balance, provide new housing opportunities, and conform with new City policy direction supporting higher density, compact, infill housing development that adds to the City's housing supply, while meeting other "smart growth" environmental objectives. These same benefits would accrue to the County for the portion of the Mixed-Use Residential Area that would remain in the County if the annexation does not occur.

Due to the employment patterns of construction workers in southern California, and the operation of the market for construction labor, construction workers are not likely, to any significant degree, to relocate their households as a consequence of the job opportunities presented by the Project.

Even assuming some new Project employees would relocate their households closer to the Project Site to be closer to work, these households plus those in the Project's new dwelling units would still fall within applicable forecasts of housing or household growth. Therefore, no indirect housing growth impacts are predicted due to retail jobs at the Project.

As to the second significance threshold, the property surrounding the Project Site is already developed with single-family and multi-family homes, and commercial uses. Roads planned for the Project are primarily for internal circulation and would not open any large undeveloped areas for new use. Similarly, utility and other infrastructure upgrades planned for the Project are intended primarily to meet Project-related demand. The Project households' demand for commercial goods and services will be met by new retail, service and other resources included as part of the Project or already located within proximity of the Project Site. No new development specifically to meet the Project's scale of household or commercial demand would be needed. On the contrary, the Project's new non-residential and residential uses will help support the viability of existing businesses in the Project vicinity. Therefore, the Project would not result in any significant adverse impacts in terms of this significance threshold.

As to the third significance threshold, housing growth would be expected to occur without the Project due to the highly urbanized nature of Los Angeles County. It is possible that some or all of the housing units planned for the Project would be developed elsewhere in the County even if the Project had not been proposed, in response to future population and employment growth. It is unlikely, however, that the number of units planned for the Project, if located elsewhere, would feature the same direct access to employment and regional transportation as will occur at the Project Site.

Conversely, the additional housing units planned for the Project Site represent a new source of housing supply at a location where housing was not previously planned, and this could cause some reduction in housing supply in adjacent areas. Considering the scale of future housing demand associated with the regional growth forecast, however, any such local shift in the location where future housing supply might be sited would not be expected to alter the overall demand-supply balance. On the contrary, the Project's co-location of new jobs and housing in close proximity to the Universal City Metro Red Line Station on Lankershim could yield housing market benefits by helping to demonstrate the environmental and other benefits of reducing vehicle miles traveled and associated air quality impacts of long-distance home-to-work commutes. Therefore, the Project would not result in any significant adverse impacts in terms of this significance threshold.

In conclusion, notwithstanding the proposed General Plan amendment and zone change, the Project would respond to, but satisfy only a portion of, unmet housing demand, rather than

inducing housing growth. The Project would help achieve the household growth forecast for the City of Los Angeles Subregion, and would be consistent with regional policies to reduce urban sprawl, efficiently utilize existing infrastructure, reduce regional congestion, and improve air quality through the reduction of VMT. For all these reasons, the Project's housing effects would be beneficial rather than adverse and thus are less than significant.

D. CUMULATIVE IMPACTS

Table IV-6 shows the cumulative housing impact of direct Project households (i.e., from new dwelling units and an allowance for additional units generated by new employment demand) in combination with all other forecasted household growth for the City of Los Angeles Subregion between 2008 and 2030. The 2008-2030 forecasted household growth is used as a proxy for "related projects," because the housing impacts of individual developments that may actually occur between 2008 and 2030 cannot be reasonably foreseen over the period of Project buildout. Table IV-6 compares the resulting total of direct Project households and forecasted household growth with the number of households forecasted to exist in the Subregion in 2030.

Table IV-6 shows that: (1) Project households account for 0.19 percent of households in the Subregion in 2030; (2) the Project's households account for 1.08 percent projected household growth in the Subregion between 2008 and 2030; and (3) cumulative households (i.e., Project households plus forecasted 2008-2030 household growth in the Subregion) represents 17.90 percent of the forecasted number of households in the Subregion in 2030.

Table IV-6
Project Households Plus "Related Projects" Households Compared With the Adopted SCAG Households Forecast for the City of Los Angeles Subregion

	Households
SCAG City of LA Subregion Households, 2030[1]	1,663,000
SCAG City of LA Subregion Household Growth, 2008-2030[1]	294,530
Project Households[2]	3,169
"Related Projects" Households[3]	294,530
Cumulative Households (Project + Related Projects Households)	297,699
Project Households Share of Subregional Households, 2030	0.19%
Project Households Share of Subregional Households Growth, 2008-2030	1.08%
Cumulative Households Share of Subregional Households, 2030	17.90%

[1] From Table IV-4.
[2] From Table IV-2.
[3] Equal to Subregional households growth, 2008-2030, per Table IV-2.

Sources: HR&A, Inc.

Thus, the Project's incremental housing effect is not "cumulatively considerable" within the meaning of CEQA,[71] and hence its cumulative housing impact is less than significant.

E. Mitigation Measures

For all of the reasons described above, the Project would have a beneficial housing effect and would not cause any significant adverse Project impacts to housing; therefore, no mitigation measures are required or recommended.

F. Level of Significance After Mitigation

Neither the Project, nor the Project in combination with "related projects" would exceed SCAG's housing forecast for the City of Los Angeles Subregion. In addition, the Project would be consistent with adopted housing policies of the 1996 Regional Comprehensive Plan and Guide, the Los Angeles County General Plan and the City of Los Angeles General Plan Framework and General Plan Housing Elements. Therefore, the Project would not result in any significant and unavoidable environmental impacts with respect to housing.

[71] State CEQA Guidelines, op. cit., § 15064(h)(1).

V. POPULATION IMPACTS

A. INTRODUCTION

This Chapter discusses general population characteristics in the Southeast San Fernando Valley area in which the Project is situated, and the City of Los Angeles Subregion. The Chapter then evaluates the Project's population impacts, and cumulative impacts, against the applicable CEQA thresholds and regional population growth forecasts.

Data used in the preparation of this Chapter were obtained from various sources including the U.S. Bureau of the Census, the Southern California Association of Governments (SCAG), and the Los Angeles Department of City Planning.

B. ENVIRONMENTAL SETTING: EXISTING AND FUTURE CONDITIONS WITHOUT THE PROJECT

1. Population Scale and Characteristics

According to the latest Department of City Planning estimates, the Southeast San Fernando Valley area included a population of 396,336, as of 2006, which is a higher density of about 10,700 people per square mile, compared with the Citywide average (8,205 persons per square mile). Nearly all of this population resides in homes, as opposed to group quarters. In 2000, as measured by the U. S. Census, 19 percent of the area's population was school age (6-19 years), just over half (57%) were adults age 20-55 years old, and about 16 percent was age 55 or older. This age profile is somewhat more weighted toward adults 20-55 years old than the Citywide age distribution. A higher proportion of households in the Southeast San Fernando Valley reside in multi-family housing than is the case in the City as a whole, and average household sizes are smaller. These population characteristics are summarized in Table V-1.

Table V-1
Population Characteristics in the County and City of Los Angeles and the Southeast San Fernando Valley, 2000 and 2006

Characteristic	County of Los Angeles				City of Los Angeles				Southeast San Fernando Valley			
	2000[a]		2006[b]		2000[a,c]		2006[b]		2000[a,c]		2006[c]	
	#	%	#	%	#	%	#	%	#	%	#	%
Total Population	9,519,338	100.0%	9,948,081	100.0%	3,694,820	100.0%	3,773,846	100.0%	367,560	100.0%	396,336	100.0%
Population/Square Mile	NA		2,436		7,629		8,205		9,902		10,700	
Household Population	9,344,086	98.2%	NA	NA	3,609,357	97.7%	NA	NA	364,550	99.2%	392,969	99.2%
Group Quarters Population	175,252	1.8%	NA	NA	85,464	2.3%	NA	NA	3,010	0.8%	3,367	0.8%
Age Ranges												
Under 5 Years	737,631	7.7%	741,942	7.5%	285,976	7.7%	281,325	7.5%	28,002	7.6%	NA	NA
5-19 Years	2,209,165	23.2%	2,238,494	22.5%	805,073	21.8%	793,568	21.0%	68,732	18.7%	NA	NA
20-34 Years	2,283,559	24.0%	2,149,581	21.6%	974,004	26.4%	902,791	23.9%	102,324	27.8%	NA	NA
35-54 Years	2,666,090	28.0%	2,900,585	29.2%	1,013,010	27.4%	1,092,215	28.9%	109,194	29.7%	NA	NA
55+ Years	1,622,893	17.0%	1,917,479	19.3%	616,757	16.7%	703,947	18.7%	59,258	16.1%	NA	NA
Median Age (years)	32.0		33.9						NA		NA	
Pop. In Occupied Housing Units	9,344,086	100.0%	NA	NA	3,609,357	100.0%	NA	NA	364,510	100.0%	392,969	100.0%
In SF Detached Units	NA	NA	NA	NA	1,607,663	44.5%	NA	NA	131,363	36.0%	139,931	35.6%
In Multi-Family Units	NA	NA	NA	NA	1,982,776	54.9%	NA	NA	232,681	63.8%	252,381	64.2%
In Other Units	NA	NA	NA	NA	18,918	0.5%	NA	NA	466	0.1%	657	0.2%
Population/Unit												
All Units	2.98		NA		2.83		NA		2.50		NA	
Detached SF Units	NA		NA		3.19		NA		2.72		NA	
Multi-Family Units	NA		NA		2.60		NA		2.39		NA	

[a] 2000 US Census (available at: http://www.census.gov/popest/estimates.php).
[b] 2006 American Community Survey (available at: http://www.census.gov/acs/www).
[c] City Planning Department estimates (available at: http://cityplanning.lacity.org).
Sources: US Census Bureau; Dept. of City Planning; HR&A, Inc.

2. Population Growth Forecasts

According to SCAG estimates, the City of Los Angeles Subregion had a population of about 3.79 million in 2000, and about 4.12 million in 2008.[72] By 2030, SCAG forecasts a population increase to 4.41 million persons. As shown in Table V-2, the forecast from 2008 through 2030 envisions additional growth of 294,000 additional persons (+7.3%).[73]

[72] SCAG, 2004 Regional Transportation Plan (RTP), *op cit*.

[73] Source: SCAG 2004 RTP Forecast, *op. cit*.

Table V-2
SCAG Population Forecast for the City of Los Angeles Subregion

Projection Year	Population
2000	3,788,752
2008[a]	4,118,637
2010	4,176,079
2020	4,298,891
2030	4,413,000
Change 2000-2008	
Number	329,885
% Change	8.71%
Change 2008-2030	
Number	294,363
% Change	7.30%

[a] Based on a straight-line interpolation between 2005 and 2010 forecast values.

Sources: SCAG 2004 RTP Regional Growth Forecast; HR&A, Inc.

In the Southeast San Fernando Valley, which is included in the City of Los Angeles Subregion, SCAG forecasts a population increase to about 425,000 persons by 2030, from about 398,000 persons in 2008, or about 27,000 additional persons (+6.7%), as shown in Table V-3.[74]

[74] *Id.*, Based on the sum of SCAG population forecast values for the group of census tracts that correspond to the boundaries of the Southeast San Fernando Valley, per the Department of City Planning specification of census tracts in the Sherman Oaks-Studio City-Toluca Lake-Cahuenga Pass, North Hollywood-Valley Village and Van Nuys-North Sherman Oaks Community Plan areas.

Table V-3
City Population Estimates and SCAG Population Forecast
for the Southeast San Fernando Valley

Projection Year	Sherman Oaks	No. Hollywood	Van Nuys	Total
2000[a]	72,984	135,953	158,616	367,553
2008[b]	79,166	146,996	171,919	398,081
2030[c]	84,264	157,032	183,363	424,658
2000-2008 Estimated Change				
# Households	6,182	11,043	13,303	30,528
% Change	8.5%	8.1%	8.4%	8.3%
2008-2030 Forecasted Change				
# Households	5,098	10,035	11,444	26,577
% Change	6.4%	6.8%	6.7%	6.7%

[a] Dept. of City Planning, based on 2000 U.S. census (available at: http://cityplanning.lacity.org).

[b] HR&A straight-line interpolation between 2005 estimate in the SCAG 2004 RTP Forecast, adjusted for the ratio of City 2005 estimate to SCAG 2005 forecast value, and 2010 forecast from SCAG 2004 RTP Small Area forecast, for census tracts that correspond to the boundaries of the Sherman Oaks-Studio City-Toluca Lake-Cahuenga Pass, North Hollywood-Valley Village and Van Nuys-North Sherman Oaks Community Plan areas.

[c] HR&A estimate from SCAG 2004 RTP Small Area forecast for 2030, adjusted for the ration of City 2005 estimate to SCAG 2005 forecast value, for census tracts that correspond to the boundaries of the Sherman Oaks-Studio City-Toluca Lake-Cahuenga Pass, North Hollywood-Valley Village and Van Nuys-North Sherman Oaks Community Plan areas.

Sources: Dept. of City Planning; SCAG; HR&A, Inc.

C. PROJECT IMPACTS

The proposed Project includes development of an urban residential community comprised of 2,937 dwelling units on the Mixed-Use Residential Area of the Project Site. As noted in the previous Chapter, the precise mix of units between condominiums and/or townhomes and apartments will depend on market circumstances at the time of construction. A mix of 60 percent condominiums/ townhomes and 40 percent apartments has been assumed for purposes of this analysis. There is no existing residential population located at the Project Site. The target market for the residential component of the Project is a mix of first-time buyers, empty-nesters, move-up buyers, entertainment industry professionals, young professionals and seniors, in households that are primarily singles, couples and small families. Unit sizes are expected to average two bedrooms, but a specific mix has not yet been determined, and could change over the course of development in response to market demand. Most buildings will have 50 or more units per structure, but some will be lower-density townhomes.

As shown in Table V-4, analysis of average household sizes for owner-occupied households in buildings with 20-49 units located within the City of Los Angeles, per the 2000 U. S. census, had an average of 2.00 persons per unit, and renter-occupied households in multi-unit buildings with 20-49 units per building had an average of 2.49 persons per household.

Table V-4
Average Household Sizes of Owner- and Renter-Occupied Units, in Buildings With Multiple Units Per Building, in the City of Los Angeles

	Owner-Occupied Units		Renter-Occupied Units	
Units/Bldg.	**Number**	**%**	**Number**	**%**
Number of Households[1]				
2 to 19	31,405	55%	342,553	55%
20 to 49	11,378	20%	152,010	24%
50+	14,155	25%	127,180	20%
Total	56,938	100%	621,743	100%
Household Population[2]				
2 to 19	75,076	60%	929,584	59%
20 to 49	22,792	18%	378,704	24%
50+	26,504	21%	265,907	17%
Total	124,372	100%	1,574,195	100%
Average Household Sizes				
2 to 19	2.39		2.71	
20 to 49	**2.00**		**2.49**	
50+	1.87		2.09	
Total	2.18		2.53	

[1] Census 2000 Summary File 3, Tables H33

[1] Census 2000 Summary File 3, Tables H32

Source: HR&A, Inc.

Applying these factors to the assumed distribution of condominiums/townhomes (60%) and apartments (40%) in the Project means that the population in the Project's 2,937 units would total 6,450 persons, as shown in Table V-5.

Table V-5
Derivation of Project Population Estimate

Variable	Condominiums/ Townhomes	Apartments	Total
% Project Units	60%	40%	100%
# Project Units	1,762	1,175	2,937
Population/Unit[1]	2.00	2.49	
Population	3,524	2,926	6,450

[1] From Table V-4.

Source: HR&A, Inc.

1. Threshold of Significance

Based on the criteria set forth in the City of Los Angeles 2006 CEQA Thresholds Guide, the Project would have a significant impact on population if:

- It would cause growth or accelerate development in an undeveloped area that exceeds projected/planned levels for the year of projected occupancy/buildout, and that would result in an adverse physical change in the environment.
- It is not compatible with adopted local and regional population growth policies, including jobs/housing balance, as set forth in the County's General Plan, the City's General Plan and the Southern California Association of Government's Regional Comprehensive Plan and Guide.
- It would introduce unplanned infrastructure that was not previously evaluated in the adopted Community Plan or General Plan; and
- It represents a substantial amount of growth to occur which would not occur without implementation of the Project.

Operationally, population impacts are assessed in terms of the Project's relationship to applicable adopted population growth forecasts only, because there are no other population growth policies *per se* in City, County or regional plans.

a. Construction-Related Population Impacts

For the reasons described in Chapter IV with respect to housing impacts, no adverse population impacts are predicted as a result of construction, since few construction workers are expected to relocate their households as a consequence of working on the Project.

b. Population Impacts of Non-Residential Development

Based on the analysis in Chapter IV, it is predicted that the scale of any Project-related population impacts resulting from non-residential development would be proportional to the number of Project employee households who are likely to move closer to Universal City within one year after the employee takes a job at the Project. All other household moves would occur for reasons unrelated to the Project.

The analysis presented in Chapter IV estimates that 232 Project employee households would move closer to Universal City. To the extent that such demand is not met by then-existing housing supply, including new housing planned as part of the Project, a resulting increase in the number of housing units, and hence population, may occur. If, as a worst case estimate, all such employees form themselves into separate households and they are equal in size to the overall average forecasted by SCAG in 2030 (i.e., 3.0 persons/household), the Project's resulting numerical indirect population impact would total 696.

c. Project Population Impacts

As shown in Table IV-6, a Project direct residential population of 6,450, and indirect population impact from non-residential development (i.e., 696), were they to be realized by 2030, would represent less than two percent (1. 7%) of the forecasted population of the Southeast San Fernando Valley in that year. The Project's total population impact also represents about 25 percent of the remaining population growth forecasted between 2008 and 2030 for the Southeast San Fernando Valley.

As also shown in Table IV-6, the Project's population impact also represents about 0.2 percent of the population forecasted for 2030 in the City of Los Angeles Subregion, and just over two percent (2.4%) of the remaining population growth forecasted between 2008 and 2030 in that subregion.

Table V-6
Project Population Compared With
Population Estimates and Adopted SCAG Forecast

Projection Year	Population
Southeast San Fernando Valley 2030	424,658
Southeast San Fernando Valley 2008-2030 Growth	26,577
SCAG City of LA Subregion 2030	4,413,000
SCAG City of LA Subregion 2008-2030 Growth	294,363
Project Population	
Direct (on-site housing)	6,450
Indirect (employee demand)	696
Total	**7,146**
Project Impacts	
Share of Southeast San Fernando Valley 2030	1.68%
Share of Southeast San Fernando Valley 2008-2030 Growth	26.89%
Share of Subregion 2030	0.16%
Share of Subregion 2008-2030 Growth	2.43%
Sources: SCAG; HR&A, Inc.	

d. Conclusions Regarding Significance of Impacts

For the reasons noted above, and in Chapter IV with regard to housing, the Project would not induce substantial population growth, nor would it exceed the population forecast for SCAG's City of Los Angeles Subregion. To the extent that the Project helps accommodate a portion of anticipated population growth, its population effects are considered beneficial. These conclusions apply regardless of whether the portion of the Mixed-Use Residential Area currently within the County is annexed into the City of Los Angeles, because in either case, the Project Site is located in the City of Los Angeles Subregion. Other impacts related to Project population (e.g., schools, public services, transportation) are addressed in the relevant sections of the Project's Draft EIR.

With regard to infrastructure-induced population growth, the roads planned for the Project are primarily for internal circulation and would not open any large undeveloped areas for new use. Similarly, utility and other infrastructure upgrades planned for the Project are intended primarily to meet Project-related demand. The Project households' demand for commercial goods and services will be met by new retail, service and other resources included as part of the Project or already located within proximity of the Project Site. No new development specifically to meet the Project's scale of household or commercial demand would be needed. Therefore, the Project would not have a significant impact on population.

It should also be noted that substantial population growth is forecasted by SCAG as well as the City and County of Los Angeles to occur over the next 20-25 years. It is possible that some or all of the population at the Project would be accommodated elsewhere in the County even if the Project had not been proposed, in response to future employment and household growth. It is

unlikely, however, that the concentration of population planned for the Project, if located elsewhere, would have the same direct access to employment and regional transportation as will occur at the Project Site.

Conversely, the additional housing units planned for the Project represent new population at a location where housing was not previously contemplated, and this could cause some reduction in population in adjacent areas. Considering the scale of future housing demand associated with the regional growth forecast, however, any such local shift in population would not be expected to alter the overall housing or employment demand-supply balance. On the contrary, the Project's co-location of new jobs, housing and population in close proximity to the Universal City Metro Red Line Station on Lankershim Boulevard would be beneficial in that it would help realize SCAG, City, and County goals with regard to the environmental and other benefits of reducing vehicle miles traveled (VMT) and associated air quality impacts of long-distance home-to-work commutes.

In conclusion, notwithstanding the proposed General Plan amendment and zone change, the Project would respond to, but satisfy only a portion of, unmet population growth, rather than inducing population growth. The Project would help achieve the population growth forecast for the City of Los Angeles Subregion, and would be consistent with regional policies to reduce urban sprawl, efficiently utilize existing infrastructure, reduce regional congestion, and improve air quality through the reduction of VMT. These conclusions apply regardless of whether the portion of the Mixed-Use Residential Area currently within the County is annexed into the City of Los Angeles, because in either case, the Project Site is located in the City of Los Angeles Subregion. For all these reasons, the Project's population effects would be beneficial rather than adverse and less than significant. Other impacts related to Project population (e.g., schools, public services, transportation) are addressed in the applicable sections of the Project's Draft EIR.

D. CUMULATIVE IMPACTS

Table V-7 shows the cumulative population impact of direct Project population (i.e., from new dwelling units and an allowance for additional units generated by new employment demand) in combination with all other forecasted population growth for the City of Los Angeles Subregion between 2008 and 2030. The 2008-2030 forecasted population growth is used as a proxy for "related projects," because the population impacts of individual developments that may actually occur between 2008 and 2030 cannot be reasonably foreseen over the period of Project buildout. Table V-7 compares the resulting total of direct Project population and the forecasted population growth in the Subregion with the number of people forecasted to reside in the Subregion in 2030.

TableV-7 shows that: (1) Project population represents 0.16 percent of the population in the Subregion in 2030; (2) Project population represents 2.43 percent of forecasted population growth in the Subregion between 2008 and 2030; and (3) cumulative population (i.e., Project population plus 2008-2030 forecasted population growth in the Subregion) represents 6.83 percent of the forecasted population in the Subregion in 2030.

Table V-7
Project Population Plus "Related Projects" Population Compared With the Adopted SCAG Population Forecast for the City of Los Angeles Subregion

	Population
SCAG City of LA Subregion Population, 2030[1]	4,413,000
SCAG City of LA Subregion Population Growth, 2008-2030[1]	294,363
Project Population[2]	7,146
"Related Projects" Population[3]	294,363
Cumulative Population (Project + Related Projects Population)	301,509
Project Population Share of Subregional Population, 2030	0.16%
Project Population Share of Subregional Population Growth, 2008-2030	2.43%
Cumulative Population Share of Subregional Population, 2030	6.83%

[1] From Table V-2.
[2] From Table V-6.
[3] Equal to Subregional population growth, 2008-2030, per Table V-2.

Sources: HR&A, Inc.

Thus, the Project's incremental population effect is not "cumulatively considerable" within the meaning of CEQA,[75] and hence its cumulative population impact is less than significant.

E. Mitigation Measures

For all of the reasons described above, the Project would not cause any significant adverse Project impact on population; therefore, no mitigation measures are required or recommended.

[75] State CEQA Guidelines, *op. cit.*, § 15064(h)(1).

F. Level of Significance After Mitigation

Neither the Project, nor the Project in combination with "related projects," would exceed SCAG's population forecasts for the City of Los Angeles Subregion. In addition, the Project would be consistent with adopted policies of the 1996 Regional Comprehensive Plan and Guide, the Los Angeles County General Plan and the City of Los Angeles General Plan Framework and General Plan Housing Elements. Therefore, the Project would not result in any significant environmental impacts with respect to population.

APPENDIX A

HR&A Advisors, Inc.
Summary of Qualifications

HR&A ADVISORS, INC.
Economic Development, Real Estate Advisory & Public Policy Consultants

SERVICES TO THE PUBLIC AND PRIVATE DEVELOPMENT COMMUNITY

HR&A Advisors, Inc. (HR&A) is a full service economic development, real estate advisory and public policy consulting firm. Founded in 1976, the firm has a distinguished track record of providing realistic answers to complex housing, real estate, economic development, public finance and strategic planning problems. HR&A clients include Fortune 500 corporations, all levels of government, the nation's leading foundations and not-for-profit agencies. The firm has extensive experience working for the legal community in such roles as court-appointed special master, consent decree monitor, technical advisor and expert witness.

HR&A practice lines include real estate analysis and advisory services, local and regional economic analysis, economic development program formulation and analysis, fiscal impact analysis, land use policy analysis, development impact fees, housing policy research and analysis, population forecasting and demographic analysis, and transportation system and other capital facilities analysis and financing.

Among the qualities for which HR&A is widely known and respected are the impeccable quality of its analysis, ability to invent new analytic methods and approaches to suit the needs of a particular client, independent professional judgment honed through extensive exposure to the rigors of the public review process and the scrutiny of the judicial system, the ability to translate complex technical analysis for a variety of non-technical audiences, and the extensive involvement of its Partners in every project it accepts.

HR&A's domestic and international consulting is provided by a staff of 25 people located in offices in Los Angeles and New York City. Staff members include public finance professionals, planners, economists, architects, lawyers and experienced project managers. Virtually every member of the firm has substantial public or private sector experience in financial and policy analysis, real estate development and planning.

HR&A provides the following analytic services to the real estate development community:

- ***Strategic Positioning and Project Management.*** HR&A has been retained by developers and public agencies to perform a variety of management assignments ranging from project conceptualization to management of the technical team responsible for project development. In addition to a thorough understanding of the development business, our clients particularly value our ability to think strategically about their projects. This has propelled the firm into the forefront of reuse planning for closed military bases and development of downtown and urban waterfront revitalization strategies. HR&A has been awarded multiple assignments to manage the interdisciplinary teams of architects, urban designers, engineers and others to develop market-sensitive urban development and redevelopment strategies such projects require.

- ***Financial Feasibility Analysis.*** HR&A has frequently been retained to provide specialized analytic services in all areas of real estate feasibility analysis. This includes pro forma development and review, cash flow modeling, investment return analysis, deal structuring, and the identification of equity, debt and subsidy resources. We have led and/or been key participants in negotiating many different kinds of real estate transactions on behalf of private and public clients, including experience with public ground lease deals.

- ***Economic and Fiscal Impact Analysis.*** HR&A regularly prepares analyses of the impacts development projects and planning proposals may have on the revenues and expenditures of local public agencies, and/or the regional economies in which they are situated. HR&A has analyzed the impacts of high-rise office buildings, shopping centers, hospital campuses, regional performing arts centers, museums, convention centers, major airports, large single-family subdivisions and condominium developments, and mixed-use developments.

- ***Developer Negotiations.*** All of HR&A's principles and senior staff are very experienced negotiators, and the firm has particular expertise in negotiating real estate transactions, often in the context of public-private development projects. These services have been performed on behalf of both private and public real estate clients, owing to our keen understanding of each party's interests and needs. HR&A has been involved in all aspects of the formal real estate negotiations process, from structuring the process through direct participation on behalf of clients and/or acting as technical advisor during the negotiation process. HR&A has participated in drafting Exclusive Negotiating Agreements, Memoranda of Understanding, Owner-Participation Agreements and Development Agreements, particularly with respect to financial terms and conditions.

- ***Other Socio-Economic Impacts Analyses.*** HR&A has a long history of experience in all aspects of population, housing, employment forecasting and analysis and public school impacts analysis. This includes special expertise in dealing with regional planning policies promoting "jobs-housing balance." The firm's population and public school enrollment forecasting has been relied on by several school districts in making long-term facilities

decisions, and was cited in a State Appellate court case which determined that the Santa Barbara campus of the University of California was exempt from school impact fees.

- ***Developer Fees and Exactions.*** In the early 1980s HR&A was retained by several jurisdictions to design exaction systems in which the firm followed the basic principles of nexus and "fair share" later codified in the *Nollan* and *Dolan* decisions by the U.S. Supreme Court, the *Ehrlich* decision by the California Supreme Court and California Government Code Section 66000, *et seq.* More recently HR&A has been retained by a number of developers and developer/owner organizations to evaluate, critique and participate in seeking changes to adopted and proposed developer fee programs. The firm's technical rigor and thoughtfulness about these issues is respected by all sides in the continuing debate about this method of infrastructure financing.

Private commercial development-related clients have included 20th Century Fox, Universal Studios, The Walt Disney Company, Olympia & York, Maguire Thomas Partners, JMB Realty Corporation, Gerald Hines Interests, Trammell Crow Company, General Growth Properties, Westfield Corporation, The Maserich Company, Tishman Speyer Properties, Reliance Development Group, Millennium Partners and the Trump Organization. Residential development clients include Centex Homes, K. Hovnanian Companies of California, Castle & Cook, Newhall Land & Farming Co., Olympia & York, Starrett Housing Corp., and William Lyon Homes and Casden Properties, Inc

Public clients have included a variety of cities, counties, redevelopment agencies, school districts, universities and colleges, special authorities and transportation agencies. HR&A has also represented large foundations with land holdings that need to be converted to cash to further their charitable purposes.

The firm also has a long history of consulting for all of the players in the housing development business, including private housing developers, HUD, private housing lenders, public lenders, national intermediaries (e.g., NEF, CEF, LISC, Enterprise Foundation) and community-based, non-profit developers around the nation.

REPRESENTATIVE LIST OF CLIENTS
Real Estate Advisory Services

Financial Institutions & Investment Companies

American Council on Life Insurance
Citibank Private Banking Group
Citicorp Real Estate, Inc.
Community Preservation Corporation
First Union National Bank
Fleet Financial Group
Goldman Sachs
Hartland Asset Management
Lehman Bros.
Shorebank Corporation

Real Estate Development Organizations and Private Companies

ARC Development
ARCORP Properties
Bermant Development Company
Boeing Realty Corporation
Casden Properties, Inc.
Castle & Cook Development Company
Centex Homes
Continental Development Corporation
Daniel Island Development Company
Disney Development Corporation
Edward J. Minskoff Equities
Gaylord Entertainment
General Growth Properties
Gibson Speno LLC
Home Depot Company
JMB Urban Realty Corporation
K. Hovnanian Companies of California
Landmark Land Company
Madison Square Garden
Maefield Development Corporation
Maserich Company
Maguire Thomas Partners
Millennium Partners
Newhall Land & Farming Company
New York Times Company
Olympia & York (USA)
The Related Companies
Reliance Development Group
Santa Monica Beach Development Corporation
Starrett Housing Corporation
Sunset Development Corporation
Tishman Speyer Properties
Trammell Crow Company
Trammell Crow Residential
TransAction Companies, Ltd.
Twentieth Century Fox
Universal Studios, Inc.
The Walt Disney Company
Westfield Corporation, Inc.
William Lyon Homes
World Financial Properties

Public Development Agencies

Alliance for Downtown New York
Battery Park City Authority
Brooklyn Bridge Park Development
Brooklyn Navy Yard Development Corporation
Catskill Watershed Corporation
Catholic Charities of Brooklyn
Cincinnati Business Committee
Columbus Downtown Redevelopment Corporation
Downtown Brooklyn Local Development Corporation
Economic Development Growth Enterprises, Oneida Co., NY
Empire State Development Corporation
Inland Valley Development Agency
Memphis Riverfront Development Corp.
National Capital Revitalization Corp.
New York City Economic Development Corporation
New York State Urban Development Corporation
Penmar Development Corporation
Port Authority of New York and New Jersey
Queens West Development Corporation

Cultural, Recreational & Special Events Clients

American Museum of Natural History
Brooklyn Academy of Music Corporation
Brooklyn Museum of Art
City of New Haven Arts & Entertainment Facilities Committee
Lincoln Center for the Performing Arts
Madison Square Garden
New Jersey Performing Arts Center
NYC2008
Public Space for Public Life
Randall's Island Sports Foundation
The Trust for Public Land

Other Quasi-Public and Non-Profit Organizations and Foundations

Apartment Association of Greater Los Angeles
The Bowery Mission
Common Ground Community
Cornell University
Corporation for Supportive Housing
Community Services Society of New York
The Enterprise Foundation
Ford Foundation
Gay Men's Health Crisis
Griffiss Local Development Corporation
Harry Frank Guggenheim Foundation
Kaiser Permanente
Local Initiatives Support Corporation
Los Angeles Collaborative for Community Development
Metropolitan Boston Housing Partnership
Metropolitan Jewish Geriatric Center
National Equity Fund
Neighborhood Progress, Inc.
New York Blood Center
Newark Alliance
Saint John's Hospital and Health Center
Saint Vincent's Hospital
San Gabriel Valley Council of Governments
Spanish-American Merchant's Assoc.
University of California, Los Angeles
University of California, Santa Barbara
Upper Manhattan Empowerment Zone Development Corp.
Williamsburg Affordable Housing
Westside Urban Forum

Governmental Agencies

Boulder Urban Renewal Authority
City of Berkeley Rent Stabilization Board
City of Beverly Hills
City of Chester (PA)
City of Columbus
City of Culver City (CA)
City of Detroit
City of Houston
City of Huntington Beach (CA)
City of Indianapolis
City of Los Angeles
City of New York
City of Olathe (KS)
City of Phoenix
City of San Luis Obispo (CA)
City of Santa Monica
City of West Hollywood (CA)
City of Yonkers
Community Redevelopment Agency of the City of Los Angeles
Compton Unified School District (CA)
County of Santa Barbara
District of Columbia
New Jersey Department of Commerce and Economic Development
Redevelopment Authority of the City of Philadelphia
San Diego Association of Governments
Santa Ana Unified School District (CA)
Santa Monica-Malibu Unified School District
Southern California Association of Governments
Yonkers Office of Downtown & Waterfront Development

Transportation Agencies

City of Chicago Department of Airports
Connecticut Dept. of Transportation
Delaware Dept. of Transportation
Los Angeles County Metropolitan Transportation Authority

Transportation Agencies (con't.)

- Los Angeles World Airports
- Massachusetts Bay Transportation Authority
- New Jersey Transportation Corp.
- New York Metropolitan Transportation Authority
- San Diego County Regional Airport Aut hority
- U.S. Dept. of Transportation

Housing Agencies

- Chicago Housing Authority
- Community Redevelopment Agency of the City of Los Angeles
- Cuyahoga Metropolitan Housing Authority (IN)
- Detroit Housing Commission
- Housing Authority of Baltimore City
- Housing Authority of the City of Houston
- Housing Authority of the County of Los Angeles
- Housing Authority of the City of Santa Monica
- Housing Bureau, City of Long Beach
- Indianapolis Housing Authority
- Los Angeles Housing Department
- New York City Housing Authority
- New York City Housing Development Corporation
- New York State Housing Finance Agency
- Omaha Housing Authority (NE)
- Philadelphia Housing Authority
- Redevelopment Authority of the City of Philadelphia
- St. Louis Housing Authority (MO)
- United States Department of Housing and Urban Development

APPENDIX B

IMPLAN Analysis Results for Project Construction

B-1 Employment
B-2 Worker Compensation
B-3 Total Economic Output

B-1: Employment Impacts of Project Construction in the Los Angeles County Economy

IMPLAN Industry Sector	Direct	Indirect	Induced	Total	% Total	Cum %
34 Construct new nonresidential commercial and h	8,309.10	0	0	8,309.10	26.5%	26.5%
37 Construct new residential permanent site sing	8,249.90	0	0	8,249.90	26.3%	52.7%
369 Architectural- engineering- and related servi	0	1,010.40	21.2	1,031.60	3.3%	56.0%
319 Wholesale trade businesses	0	667.7	354.8	1,022.60	3.3%	59.3%
413 Food services and drinking places	0	206	784.6	990.6	3.2%	62.4%
329 Retail Stores - General merchandise	0	283.4	224.5	507.9	1.6%	64.1%
324 Retail Stores - Food and beverage	0	277.7	223.7	501.4	1.6%	65.7%
382 Employment services	0	308.9	137.2	446.1	1.4%	67.1%
360 Real estate establishments	0	188	250.2	438.2	1.4%	68.5%
320 Retail Stores - Motor vehicle and parts	0	258.9	172.1	431	1.4%	69.8%
394 Offices of physicians- dentists- and other he	0	0	426.3	426.3	1.4%	71.2%
397 Private hospitals	0	0	327.2	327.2	1.0%	72.2%
335 Transport by truck	0	250.5	55.1	305.6	1.0%	73.2%
331 Retail Nonstores - Direct and electronic sale	0	146.1	123.8	269.9	0.9%	74.1%
330 Retail Stores - Miscellaneous	0	149.2	109.4	258.6	0.8%	74.9%
327 Retail Stores - Clothing and clothing accesso	0	118.3	116.3	234.6	0.7%	75.6%
388 Services to buildings and dwellings	0	153.3	73.5	226.8	0.7%	76.4%
367 Legal services	0	139.7	81	220.8	0.7%	77.1%
426 Private household operations	0	0	219.3	219.3	0.7%	77.8%
325 Retail Stores - Health and personal care	0	125.1	94.1	219.1	0.7%	78.5%
354 Monetary authorities and depository credit in	0	122.7	90.8	213.5	0.7%	79.1%
398 Nursing and residential care facilities	0	0	212	212	0.7%	79.8%
368 Accounting- tax preparation- bookkeeping- and	0	147.9	59.2	207.1	0.7%	80.5%
425 Civic- social- professional- and similar orga	0	115.3	85.1	200.4	0.6%	81.1%
295 Wood kitchen cabinet and countertop manufactu	0	193.3	5.5	198.9	0.6%	81.8%
414 Automotive repair and maintenance- except car	0	110.7	79.6	190.3	0.6%	82.4%
321 Retail Stores - Furniture and home furnishing	0	141.8	45	186.8	0.6%	83.0%
323 Retail Stores - Building material and garden	0	96.5	86.3	182.8	0.6%	83.5%
356 Securities- commodity contracts- investments-	0	80.7	98.3	179	0.6%	84.1%
400 Individual and family services	0	0	156	156	0.5%	84.6%
392 Private junior colleges- colleges- universiti	0	5.1	146.9	152	0.5%	85.1%
381 Management of companies and enterprises	0	89	45.5	134.4	0.4%	85.5%
322 Retail Stores - Electronics and appliances	0	81.3	45.7	127.1	0.4%	85.9%
328 Retail Stores - Sporting goods- hobby- book a	0	74.7	51.5	126.1	0.4%	86.3%
301 Office furniture and custom architectural woo	0	118.3	0.1	118.4	0.4%	86.7%
357 Insurance carriers	0	24.2	91.2	115.4	0.4%	87.1%
99 Wood windows and doors and millwork manufactu	0	105.8	1.8	107.6	0.3%	87.4%
149 Other plastics product manufacturing	0	98.3	8.2	106.5	0.3%	87.7%
387 Investigation and security services	0	78.9	25.4	104.3	0.3%	88.1%
374 Management- scientific- and technical consult	0	67.4	35.7	103	0.3%	88.4%
396 Medical and diagnostic labs and outpatient an	0	0.1	101.2	101.3	0.3%	88.7%
411 Hotels and motels- including casino hotels	0	49.9	51	100.9	0.3%	89.1%
399 Child day care services	0	0	93.2	93.2	0.3%	89.4%
39 Maint & repair construct of nonresident struc	0	61	31.8	92.7	0.3%	89.6%
355 Nondepository credit intermediation and relat	0	30.8	57.5	88.3	0.3%	89.9%
427 US Postal Service	0	45.4	39.3	84.7	0.3%	90.2%
386 Business support services	0	62	21.1	83.2	0.3%	90.5%
351 Telecommunications	0	41.9	40.2	82.1	0.3%	90.7%
417 Commercial and industrial machinery and equip	0	70.2	9.3	79.5	0.3%	91.0%
338 Scenic and sightseeing transportation and sup	0	54.6	23.5	78.1	0.2%	91.2%
326 Retail Stores - Gasoline stations	0	37.4	37.6	75	0.2%	91.5%
419 Personal care services	0	0	74.5	74.5	0.2%	91.7%
393 Other private educational services	0	3.4	70.9	74.2	0.2%	91.9%
395 Home health care services	0	0	72.5	72.5	0.2%	92.2%
391 Private elementary and secondary schools	0	0	71.8	71.8	0.2%	92.4%
339 Couriers and messengers	0	43.8	25.6	69.3	0.2%	92.6%
372 Computer systems design services	0	51.1	15	66	0.2%	92.8%
377 Advertising and related services	0	38.5	26.2	64.7	0.2%	93.0%
401 Community food- housing- and other relief ser	0	0	64	64	0.2%	93.2%
409 Amusement parks- arcades- and gambling indust	0	0	59.6	59.6	0.2%	93.4%
340 Warehousing and storage	0	35.8	21.9	57.7	0.2%	93.6%
336 Transit and ground passenger transportation	0	17.7	36.4	54.1	0.2%	93.8%
365 Commercial and industrial machinery and equip	0	49.4	3.6	53	0.2%	94.0%
432 Other state and local government enterprises	0	11.3	41.5	52.7	0.2%	94.1%
384 Office administrative services	0	37.9	13.9	51.7	0.2%	94.3%
407 Fitness and recreational sports centers	0	11.9	39.6	51.6	0.2%	94.5%
424 Grantmaking- giving- and social advocacy orga	0	0	50.1	50.1	0.2%	94.6%
358 Insurance agencies- brokerages- and related a	0	11.5	38.2	49.6	0.2%	94.8%
431 * Not unique commod (S&LG electricity)	0	22.3	24.8	47.1	0.2%	94.9%
380 All other miscellaneous professional- scienti	0	36.2	10.5	46.7	0.1%	95.1%
376 Scientific research and development services	0	21.1	20.4	41.6	0.1%	95.2%
421 Dry-cleaning and laundry services	0	5	35.6	40.6	0.1%	95.3%
403 Spectator sports companies	0	12.3	27.5	39.8	0.1%	95.5%
All Other Sectors	-0.10	770.80	655.90	1,427.00	4.5%	100.0%
Total	**16,558.90**	**7,668.40**	**7,169.80**	**31,397.10**	**100.0%**	

Source: IMPLAN v.2; HR&A Advisors, Inc.

B-2: Worker Compensation Impacts of Project Construction in the Los Angeles County Economy (in 2007 dollars)

IMPLAN Industry Sector	Direct	Indirect	Induced	Total	% Total	Cum %
34 Construct new nonresidential commercial and h	402,262,656	0	0	402,262,656	27.6%	27.6%
37 Construct new residential permanent site sing	400,058,496	0	0	400,058,496	27.4%	55.0%
369 Architectural- engineering- and related servi	0	64,450,396	1,353,516	65,803,912	4.5%	59.5%
319 Wholesale trade businesses	0	39,925,032	21,214,886	61,139,920	4.2%	63.7%
394 Offices of physicians- dentists- and other he	0	113	23,157,584	23,157,696	1.6%	65.3%
397 Private hospitals	0	138	23,102,478	23,102,616	1.6%	66.9%
320 Retail Stores - Motor vehicle and parts	0	13,592,640	9,034,067	22,626,708	1.6%	68.4%
413 Food services and drinking places	0	4,444,532	16,930,930	21,375,462	1.5%	69.9%
356 Securities- commodity contracts- investments-	0	8,057,299	9,805,527	17,862,826	1.2%	71.1%
367 Legal services	0	9,789,570	5,678,624	15,468,194	1.1%	72.2%
381 Management of companies and enterprises	0	10,194,387	5,211,536	15,405,922	1.1%	73.3%
324 Retail Stores - Food and beverage	0	8,518,490	6,860,557	15,379,047	1.1%	74.3%
354 Monetary authorities and depository credit in	0	8,295,071	6,139,581	14,434,652	1.0%	75.3%
329 Retail Stores - General merchandise	0	7,329,905	5,805,980	13,135,884	0.9%	76.2%
335 Transport by truck	0	9,310,519	2,046,401	11,356,920	0.8%	77.0%
382 Employment services	0	7,860,377	3,489,778	11,350,154	0.8%	77.8%
357 Insurance carriers	0	1,890,435	7,122,111	9,012,546	0.6%	78.4%
295 Wood kitchen cabinet and countertop manufactu	0	8,713,639	249,358	8,962,997	0.6%	79.0%
368 Accounting- tax preparation- bookkeeping- and	0	5,970,976	2,388,501	8,359,477	0.6%	79.6%
425 Civic- social- professional- and similar orga	0	4,722,454	3,484,921	8,207,375	0.6%	80.1%
325 Retail Stores - Health and personal care	0	4,640,526	3,489,191	8,129,717	0.6%	80.7%
427 US Postal Service	0	3,821,783	3,305,937	7,127,720	0.5%	81.2%
355 Nondepository credit intermediation and relat	0	2,471,451	4,615,971	7,087,422	0.5%	81.7%
323 Retail Stores - Building material and garden	0	3,612,334	3,231,269	6,843,603	0.5%	82.1%
322 Retail Stores - Electronics and appliances	0	4,297,192	2,414,911	6,712,103	0.5%	82.6%
321 Retail Stores - Furniture and home furnishing	0	5,032,169	1,598,914	6,631,083	0.5%	83.0%
351 Telecommunications	0	3,231,421	3,097,895	6,329,316	0.4%	83.5%
431 * Not unique commod (S&LG electricity)	0	2,944,588	3,272,421	6,217,009	0.4%	83.9%
360 Real estate establishments	0	2,656,843	3,536,165	6,193,008	0.4%	84.3%
327 Retail Stores - Clothing and clothing accesso	0	3,047,367	2,997,284	6,044,651	0.4%	84.7%
301 Office furniture and custom architectural woo	0	5,898,444	4,456	5,902,899	0.4%	85.1%
374 Management- scientific- and technical consult	0	3,818,288	2,020,172	5,838,460	0.4%	85.5%
388 Services to buildings and dwellings	0	3,883,542	1,862,279	5,745,822	0.4%	85.9%
149 Other plastics product manufacturing	0	5,185,193	432,625	5,617,818	0.4%	86.3%
392 Private junior colleges- colleges- universiti	0	185,800	5,304,273	5,490,073	0.4%	86.7%
338 Scenic and sightseeing transportation and sup	0	3,837,886	1,650,421	5,488,307	0.4%	87.1%
330 Retail Stores - Miscellaneous	0	3,025,898	2,219,567	5,245,465	0.4%	87.4%
414 Automotive repair and maintenance- except car	0	3,025,045	2,176,485	5,201,529	0.4%	87.8%
432 Other state and local government enterprises	0	984,789	3,616,718	4,601,507	0.3%	88.1%
39 Maint & repair construct of nonresident struc	0	2,984,981	1,556,920	4,541,900	0.3%	88.4%
396 Medical and diagnostic labs and outpatient an	0	3,172	4,508,214	4,511,386	0.3%	88.7%
398 Nursing and residential care facilities	0	0	4,056,321	4,056,321	0.3%	89.0%
331 Retail Nonstores - Direct and electronic sale	0	2,150,676	1,822,301	3,972,977	0.3%	89.3%
384 Office administrative services	0	2,852,085	1,044,340	3,896,425	0.3%	89.6%
99 Wood windows and doors and millwork manufactu	0	3,641,051	62,161	3,703,211	0.3%	89.8%
400 Individual and family services	0	0	3,607,427	3,607,427	0.2%	90.1%
377 Advertising and related services	0	2,129,819	1,452,398	3,582,217	0.2%	90.3%
411 Hotels and motels- including casino hotels	0	1,752,972	1,790,387	3,543,360	0.2%	90.5%
417 Commercial and industrial machinery and equip	0	3,077,085	407,590	3,484,675	0.2%	90.8%
358 Insurance agencies- brokerages- and related a	0	783,530	2,607,276	3,390,806	0.2%	91.0%
328 Retail Stores - Sporting goods- hobby- book a	0	1,982,540	1,367,199	3,349,739	0.2%	91.2%
372 Computer systems design services	0	2,575,465	754,758	3,330,224	0.2%	91.5%
31 Electric power generation- transmission- and	0	1,520,811	1,706,056	3,226,867	0.2%	91.7%
386 Business support services	0	2,277,721	776,131	3,053,852	0.2%	91.9%
115 Petroleum refineries	0	2,072,642	880,938	2,953,580	0.2%	92.1%
20 Extraction of oil and natural gas	0	1,990,360	948,848	2,939,208	0.2%	92.3%
365 Commercial and industrial machinery and equip	0	2,627,801	192,296	2,820,097	0.2%	92.5%
340 Warehousing and storage	0	1,734,910	1,058,711	2,793,621	0.2%	92.7%
424 Grantmaking- giving- and social advocacy orga	0	736	2,618,359	2,619,095	0.2%	92.9%
376 Scientific research and development services	0	1,330,146	1,286,784	2,616,929	0.2%	93.1%
391 Private elementary and secondary schools	0	0	2,587,653	2,587,653	0.2%	93.2%
339 Couriers and messengers	0	1,577,835	920,880	2,498,714	0.2%	93.4%
387 Investigation and security services	0	1,819,754	586,857	2,406,611	0.2%	93.6%
326 Retail Stores - Gasoline stations	0	1,189,124	1,195,122	2,384,247	0.2%	93.7%
332 Transport by air	0	829,285	1,539,330	2,368,615	0.2%	93.9%
346 Motion picture and video industries	0	519,887	1,811,779	2,331,666	0.2%	94.1%
395 Home health care services	0	0	2,200,856	2,200,856	0.2%	94.2%
117 Asphalt shingle and coating materials manufac	0	2,062,557	44,098	2,106,655	0.1%	94.3%
393 Other private educational services	0	91,762	1,940,380	2,032,142	0.1%	94.5%
409 Amusement parks- arcades- and gambling indust	0	1,093	1,884,883	1,885,976	0.1%	94.6%
390 Waste management and remediation services	0	1,069,033	776,934	1,845,967	0.1%	94.7%
333 Transport by rail	0	1,405,251	362,527	1,767,778	0.1%	94.9%
426 Private household operations	0	0	1,763,880	1,763,880	0.1%	95.0%
348 Radio and television broadcasting	0	971,957	712,053	1,684,009	0.1%	95.1%
All Other Sectors	0	36,411,889	35,062,562	71,474,457	4.9%	100.0%
Total	**802,321,152**	**364,104,462**	**291,818,499**	**1,458,244,115**	**100.0%**	

Source: IMPLAN v.2; HR&A Advisors, Inc.

B-3: Total Economic Output Impacts of Project Construction in the Los Angeles County Economy (in 2007 dollars)

	IMPLAN Industry Sector	Direct	Indirect	Induced	Total	% Total	Cum %
37	Construct new residential permanent site sing	1,823,495,040	0	0	1,823,495,040	34.8%	34.8%
34	Construct new nonresidential commercial and h	1,217,913,984	0	0	1,217,913,984	23.2%	58.1%
319	Wholesale trade businesses	0	116,718,208	62,020,328	178,738,528	3.4%	61.5%
369	Architectural- engineering- and related servi	0	136,841,136	2,873,786	139,714,928	2.7%	64.1%
361	Imputed rental activity for owner-occupied dw	0	0	111,989,984	111,989,984	2.1%	66.3%
115	Petroleum refineries	0	73,088,288	31,064,820	104,153,104	2.0%	68.3%
360	Real estate establishments	0	37,417,360	49,801,208	87,218,568	1.7%	69.9%
413	Food services and drinking places	0	12,721,704	48,461,860	61,183,564	1.2%	71.1%
354	Monetary authorities and depository credit in	0	32,540,420	24,084,728	56,625,148	1.1%	72.2%
394	Offices of physicians- dentists- and other he	0	250	51,253,412	51,253,660	1.0%	73.2%
320	Retail Stores - Motor vehicle and parts	0	30,238,032	20,097,084	50,335,116	1.0%	74.1%
335	Transport by truck	0	36,707,568	8,068,123	44,775,692	0.9%	75.0%
356	Securities- commodity contracts- investments-	0	19,319,612	23,511,476	42,831,088	0.8%	75.8%
367	Legal services	0	26,595,110	15,426,993	42,022,104	0.8%	76.6%
397	Private hospitals	0	248	41,305,940	41,306,188	0.8%	77.4%
324	Retail Stores - Food and beverage	0	20,964,980	16,884,616	37,849,596	0.7%	78.1%
351	Telecommunications	0	19,078,504	18,290,162	37,368,664	0.7%	78.8%
357	Insurance carriers	0	7,595,934	28,617,264	36,213,200	0.7%	79.5%
381	Management of companies and enterprises	0	21,258,338	10,867,606	32,125,944	0.6%	80.1%
329	Retail Stores - General merchandise	0	16,487,885	13,059,969	29,547,854	0.6%	80.7%
295	Wood kitchen cabinet and countertop manufactu	0	27,952,114	799,904	28,752,018	0.5%	81.2%
149	Other plastics product manufacturing	0	21,837,560	1,822,009	23,659,570	0.5%	81.7%
331	Retail Nonstores - Direct and electronic sale	0	11,456,697	9,707,438	21,164,136	0.4%	82.1%
368	Accounting- tax preparation- bookkeeping- and	0	14,750,746	5,900,570	20,651,316	0.4%	82.5%
20	Extraction of oil and natural gas	0	13,969,172	6,659,409	20,628,580	0.4%	82.9%
321	Retail Stores - Furniture and home furnishing	0	15,634,947	4,967,825	20,602,772	0.4%	83.3%
355	Nondepository credit intermediation and relat	0	7,031,978	13,133,747	20,165,724	0.4%	83.7%
327	Retail Stores - Clothing and clothing accesso	0	10,090,854	9,925,014	20,015,868	0.4%	84.0%
99	Wood windows and doors and millwork manufactu	0	18,999,616	324,364	19,323,980	0.4%	84.4%
325	Retail Stores - Health and personal care	0	10,565,190	7,943,921	18,509,112	0.4%	84.8%
31	Electric power generation- transmission- and	0	8,716,043	9,777,712	18,493,756	0.4%	85.1%
414	Automotive repair and maintenance- except car	0	10,735,390	7,723,990	18,459,380	0.4%	85.5%
365	Commercial and industrial machinery and equip	0	17,130,952	1,253,600	18,384,552	0.4%	85.8%
323	Retail Stores - Building material and garden	0	9,354,721	8,367,893	17,722,614	0.3%	86.1%
380	All other miscellaneous professional- scienti	0	12,638,762	3,680,221	16,318,982	0.3%	86.5%
349	Cable and other subscription programming	0	8,873,978	7,199,899	16,073,877	0.3%	86.8%
144	Plastics pipe and pipe fitting manufacturing	0	15,538,965	365,208	15,904,173	0.3%	87.1%
396	Medical and diagnostic labs and outpatient an	0	11,126	15,814,173	15,825,299	0.3%	87.4%
382	Employment services	0	10,569,193	4,692,413	15,261,606	0.3%	87.7%
374	Management- scientific- and technical consult	0	9,519,793	5,036,713	14,556,506	0.3%	87.9%
388	Services to buildings and dwellings	0	9,720,378	4,661,223	14,381,601	0.3%	88.2%
330	Retail Stores - Miscellaneous	0	8,256,704	6,056,485	14,313,188	0.3%	88.5%
301	Office furniture and custom architectural woo	0	14,232,164	10,751	14,242,915	0.3%	88.8%
432	Other state and local government enterprises	0	2,909,205	10,684,288	13,593,492	0.3%	89.0%
322	Retail Stores - Electronics and appliances	0	8,535,332	4,796,638	13,331,970	0.3%	89.3%
384	Office administrative services	0	9,726,805	3,561,638	13,288,442	0.3%	89.5%
425	Civic- social- professional- and similar orga	0	7,533,821	5,559,562	13,093,382	0.2%	89.8%
32	Natural gas distribution	0	5,646,365	7,426,442	13,072,807	0.2%	90.0%
417	Commercial and industrial machinery and equip	0	10,367,615	1,373,292	11,740,906	0.2%	90.3%
431	* Not unique commod (S&LG electricity)	0	5,538,027	6,154,596	11,692,622	0.2%	90.5%
411	Hotels and motels- including casino hotels	0	5,497,531	5,614,869	11,112,400	0.2%	90.7%
392	Private junior colleges- colleges- universiti	0	375,970	10,733,321	11,109,291	0.2%	90.9%
39	Maint & repair construct of nonresident struc	0	7,110,270	3,708,607	10,818,876	0.2%	91.1%
326	Retail Stores - Gasoline stations	0	5,359,447	5,386,478	10,745,924	0.2%	91.3%
338	Scenic and sightseeing transportation and sup	0	7,234,964	3,111,279	10,346,242	0.2%	91.5%
377	Advertising and related services	0	5,819,599	3,968,588	9,788,187	0.2%	91.7%
427	US Postal Service	0	5,019,290	4,341,810	9,361,100	0.2%	91.9%
359	Funds- trusts- and other financial vehicles	0	235,037	8,349,598	8,584,635	0.2%	92.0%
398	Nursing and residential care facilities	0	0	8,383,557	8,383,557	0.2%	92.2%
332	Transport by air	0	2,904,476	5,391,329	8,295,805	0.2%	92.4%
328	Retail Stores - Sporting goods- hobby- book a	0	4,894,669	3,375,460	8,270,129	0.2%	92.5%
117	Asphalt shingle and coating materials manufac	0	8,086,787	172,898	8,259,686	0.2%	92.7%
372	Computer systems design services	0	6,149,252	1,802,082	7,951,334	0.2%	92.8%
358	Insurance agencies- brokerages- and related a	0	1,808,335	6,017,418	7,825,753	0.1%	93.0%
409	Amusement parks- arcades- and gambling indust	0	4,168	7,189,426	7,193,594	0.1%	93.1%
422	Other personal services	0	466,814	6,515,526	6,982,340	0.1%	93.2%
400	Individual and family services	0	0	6,901,597	6,901,597	0.1%	93.4%
386	Business support services	0	5,053,853	1,722,095	6,775,948	0.1%	93.5%
333	Transport by rail	0	5,097,380	1,315,026	6,412,406	0.1%	93.6%
302	Showcase- partition- shelving- and locker man	0	6,092,769	270,554	6,363,322	0.1%	93.7%
362	Automotive equipment rental and leasing	0	2,544,162	3,666,842	6,211,004	0.1%	93.9%
390	Waste management and remediation services	0	3,528,410	2,564,318	6,092,727	0.1%	94.0%
95	Sawmills and wood preservation	0	5,777,342	93,462	5,870,804	0.1%	94.1%
	All Other Sectors	0	149,817,426	159,462,960	309,280,394	5.9%	100.0%
	Total	**3,041,409,024**	**1,184,295,741**	**1,013,119,397**	**5,238,824,155**	**100.0%**	

Source: IMPLAN v.2; HR&A Advisors, Inc.

APPENDIX C
IMPLAN Analysis Results for Annual Operations of Universal City, 2007

C-1 Employment
C-2 Worker Compensation
C-3 Total Economic Output

C-1: Employment Impacts of Universal City in the Los Angeles County Economy, 2007

IMPLAN Industry Sector	Direct	Indirect	Induced	Total	% Total	Cum %
409 Amusement parks- arcades- and gambling indust	3,867.00	0.2	44.7	3,911.90	15.6%	15.6%
346 Motion picture and video industries	3,410.00	378.6	15.2	3,803.80	15.1%	30.7%
413 Food services and drinking places	1,294.00	269.3	588.6	2,151.90	8.6%	39.2%
330 Retail Stores - Miscellaneous	1,294.00	49.4	82.1	1,425.50	5.7%	44.9%
380 All other miscellaneous professional- scienti	1,270.00	49.7	7.9	1,327.60	5.3%	50.2%
40 Maint & repair construct of residential struc	943	0.3	3.4	946.7	3.8%	54.0%
368 Accounting- tax preparation- bookkeeping- and	582	210.9	44.4	837.3	3.3%	57.3%
382 Employment services	0	588.7	102.9	691.6	2.8%	60.0%
404 Promoters of performing arts and sports and a	582	61.6	11.7	655.3	2.6%	62.6%
386 Business support services	485	60.9	15.9	561.7	2.2%	64.9%
360 Real estate establishments	0	357.3	187.7	545	2.2%	67.0%
319 Wholesale trade businesses	0	228.8	266.2	494.9	2.0%	69.0%
394 Offices of physicians- dentists- and other he	0	0	319.8	319.8	1.3%	70.3%
329 Retail Stores - General merchandise	0	88.5	168.4	256.9	1.0%	71.3%
324 Retail Stores - Food and beverage	0	86.7	167.8	254.4	1.0%	72.3%
388 Services to buildings and dwellings	0	196.4	55.1	251.6	1.0%	73.3%
397 Private hospitals	0	0	245.4	245.5	1.0%	74.3%
367 Legal services	0	167.9	60.8	228.7	0.9%	75.2%
320 Retail Stores - Motor vehicle and parts	0	80.8	129.1	209.9	0.8%	76.0%
374 Management- scientific- and technical consult	0	169.4	26.7	196.2	0.8%	76.8%
377 Advertising and related services	0	173.3	19.7	193	0.8%	77.6%
369 Architectural- engineering- and related servi	0	171.6	15.9	187.5	0.7%	78.3%
426 Private household operations	0	0	164.5	164.5	0.7%	79.0%
381 Management of companies and enterprises	0	125.5	34.1	159.6	0.6%	79.6%
398 Nursing and residential care facilities	0	0	159	159	0.6%	80.2%
354 Monetary authorities and depository credit in	0	89.4	68.1	157.5	0.6%	80.9%
427 US Postal Service	0	116.4	29.5	145.9	0.6%	81.5%
335 Transport by truck	0	98.3	41.3	139.7	0.6%	82.0%
331 Retail Nonstores - Direct and electronic sale	0	45.6	92.9	138.4	0.6%	82.6%
357 Insurance carriers	0	59	68.4	127.4	0.5%	83.1%
414 Automotive repair and maintenance- except car	0	67.1	59.7	126.8	0.5%	83.6%
356 Securities- commodity contracts- investments-	0	52.8	73.7	126.5	0.5%	84.1%
327 Retail Stores - Clothing and clothing accesso	0	36.9	87.3	124.2	0.5%	84.6%
425 Civic- social- professional- and similar orga	0	56.6	63.8	120.5	0.5%	85.0%
400 Individual and family services	0	0	117.1	117.1	0.5%	85.5%
387 Investigation and security services	0	94.6	19.1	113.7	0.5%	86.0%
392 Private junior colleges- colleges- universiti	0	2.6	110.2	112.8	0.4%	86.4%
399 Child day care services	40	0	69.9	109.9	0.4%	86.9%
325 Retail Stores - Health and personal care	0	39	70.6	109.6	0.4%	87.3%
323 Retail Stores - Building material and garden	0	30.1	64.8	94.9	0.4%	87.7%
39 Maint & repair construct of nonresident struc	0	68.7	23.9	92.6	0.4%	88.0%
339 Couriers and messengers	0	68.7	19.2	87.9	0.3%	88.4%
355 Nondepository credit intermediation and relat	0	43.8	43.1	86.9	0.3%	88.7%
411 Hotels and motels- including casino hotels	0	45.3	38.3	83.6	0.3%	89.1%
321 Retail Stores - Furniture and home furnishing	0	44.2	33.8	78	0.3%	89.4%
384 Office administrative services	0	66.2	10.4	76.6	0.3%	89.7%
396 Medical and diagnostic labs and outpatient an	0	0.6	76	76.6	0.3%	90.0%
372 Computer systems design services	0	62.6	11.2	73.8	0.3%	90.3%
405 Independent artists- writers- and performers	0	66.6	2.2	68.9	0.3%	90.5%
351 Telecommunications	0	36.3	30.2	66.5	0.3%	90.8%
336 Transit and ground passenger transportation	0	36	27.3	63.3	0.3%	91.1%
393 Other private educational services	0	9.2	53.2	62.4	0.2%	91.3%
328 Retail Stores - Sporting goods- hobby- book a	0	23.3	38.6	61.9	0.2%	91.6%
340 Warehousing and storage	0	43.4	16.4	59.8	0.2%	91.8%
322 Retail Stores - Electronics and appliances	0	25.4	34.3	59.7	0.2%	92.0%
295 Wood kitchen cabinet and countertop manufactu	0	55.1	4.2	59.3	0.2%	92.3%
358 Insurance agencies- brokerages- and related a	0	30	28.6	58.7	0.2%	92.5%
403 Spectator sports companies	0	36.7	20.7	57.3	0.2%	92.7%
419 Personal care services	0	0	55.9	55.9	0.2%	93.0%
338 Scenic and sightseeing transportation and sup	0	36.8	17.6	54.4	0.2%	93.2%
395 Home health care services	0	0	54.4	54.4	0.2%	93.4%
99 Wood windows and doors and millwork manufactu	0	52.5	1.4	53.8	0.2%	93.6%
391 Private elementary and secondary schools	0	0	53.8	53.8	0.2%	93.8%
375 Environmental and other technical consulting	0	45	7.2	52.2	0.2%	94.0%
421 Dry-cleaning and laundry services	0	21.8	26.7	48.5	0.2%	94.2%
432 Other state and local government enterprises	0	17.1	31.1	48.2	0.2%	94.4%
401 Community food- housing- and other relief ser	0	0	48	48	0.2%	94.6%
431 * Not unique commod (S&LG electricity)	0	29.2	18.6	47.8	0.2%	94.8%
417 Commercial and industrial machinery and equip	0	39	7	46	0.2%	95.0%
407 Fitness and recreational sports centers	0	10.3	29.7	40	0.2%	95.1%
326 Retail Stores - Gasoline stations	0	11.7	28.2	39.9	0.2%	95.3%
362 Automotive equipment rental and leasing	0	24.7	13.4	38.1	0.2%	95.4%
424 Grantmaking- giving- and social advocacy orga	0	0	37.6	37.6	0.1%	95.6%
All Other Sectors	0.00	646.60	462.90	1,109.50	4.4%	100.0%
Total	**13,767.00**	**6,001.00**	**5,378.50**	**25,146.60**	**100.0%**	

Source: IMPLAN v.2; HR&A Advisors, Inc.

C-2: Worker Compensation Impacts of Universal City in the Los Angeles County Economy, 2007

IMPLAN Industry Sector	Direct	Indirect	Induced	Total	% Total	Cum %
346 Motion picture and video industries	305,204,736	33,885,292	1,359,118	340,449,120	29.7%	29.7%
409 Amusement parks- arcades- and gambling indust	122,335,600	6,359	1,413,971	123,755,928	10.8%	40.5%
380 All other miscellaneous professional- scienti	45,278,768	1,771,021	281,886	47,331,676	4.1%	44.6%
413 Food services and drinking places	27,923,480	5,810,953	12,700,936	46,435,368	4.0%	48.7%
40 Maint & repair construct of residential struc	45,733,484	12,338	166,336	45,912,160	4.0%	52.7%
368 Accounting- tax preparation- bookkeeping- and	23,495,554	8,515,388	1,791,784	33,802,728	2.9%	55.6%
319 Wholesale trade businesses	0	13,678,345	15,914,438	29,592,784	2.6%	58.2%
330 Retail Stores - Miscellaneous	26,249,574	1,002,311	1,665,004	28,916,888	2.5%	60.7%
386 Business support services	17,809,254	2,235,077	582,231	20,626,560	1.8%	62.5%
404 Promoters of performing arts and sports and a	17,796,498	1,883,711	357,712	20,037,920	1.7%	64.3%
381 Management of companies and enterprises	0	14,378,132	3,909,556	18,287,688	1.6%	65.9%
382 Employment services	0	14,977,552	2,617,939	17,595,490	1.5%	67.4%
394 Offices of physicians- dentists- and other he	0	974	17,372,308	17,373,282	1.5%	68.9%
397 Private hospitals	0	1,196	17,331,296	17,332,492	1.5%	70.4%
367 Legal services	0	11,762,285	4,259,981	16,022,266	1.4%	71.8%
356 Securities- commodity contracts- investments-	0	5,267,918	7,355,827	12,623,744	1.1%	72.9%
427 US Postal Service	0	9,804,598	2,480,005	12,284,602	1.1%	74.0%
369 Architectural- engineering- and related servi	0	10,943,996	1,015,371	11,959,367	1.0%	75.0%
374 Management- scientific- and technical consult	0	9,600,417	1,515,476	11,115,892	1.0%	76.0%
320 Retail Stores - Motor vehicle and parts	0	4,241,947	6,776,908	11,018,854	1.0%	77.0%
377 Advertising and related services	0	9,589,055	1,089,537	10,678,592	0.9%	77.9%
354 Monetary authorities and depository credit in	0	6,046,381	4,605,742	10,652,123	0.9%	78.8%
357 Insurance carriers	0	4,610,564	5,342,712	9,953,276	0.9%	79.7%
324 Retail Stores - Food and beverage	0	2,658,419	5,146,447	7,804,866	0.7%	80.4%
360 Real estate establishments	0	5,049,971	2,652,848	7,702,819	0.7%	81.0%
355 Nondepository credit intermediation and relat	0	3,513,844	3,462,722	6,976,566	0.6%	81.7%
329 Retail Stores - General merchandise	0	2,287,490	4,355,357	6,642,847	0.6%	82.2%
388 Services to buildings and dwellings	0	4,976,756	1,397,020	6,373,776	0.6%	82.8%
431 * Not unique commod (S&LG electricity)	0	3,854,312	2,454,942	6,309,253	0.6%	83.3%
384 Office administrative services	0	4,986,265	783,436	5,769,701	0.5%	83.8%
405 Independent artists- writers- and performers	0	5,334,136	180,189	5,514,326	0.5%	84.3%
335 Transport by truck	0	3,655,127	1,535,159	5,190,285	0.5%	84.8%
351 Telecommunications	0	2,797,741	2,323,990	5,121,731	0.4%	85.2%
425 Civic- social- professional- and similar orga	0	2,320,233	2,614,277	4,934,510	0.4%	85.7%
348 Radio and television broadcasting	0	4,380,301	534,157	4,914,458	0.4%	86.1%
39 Maint & repair construct of nonresident struc	0	3,365,955	1,167,964	4,533,919	0.4%	86.5%
432 Other state and local government enterprises	0	1,493,969	2,713,194	4,207,163	0.4%	86.8%
392 Private junior colleges- colleges- universiti	0	93,963	3,979,089	4,073,052	0.4%	87.2%
325 Retail Stores - Health and personal care	0	1,448,197	2,617,417	4,065,614	0.4%	87.6%
358 Insurance agencies- brokerages- and related a	0	2,051,998	1,955,872	4,007,870	0.3%	87.9%
338 Scenic and sightseeing transportation and sup	0	2,582,203	1,238,092	3,820,295	0.3%	88.2%
372 Computer systems design services	0	3,155,874	566,197	3,722,071	0.3%	88.6%
323 Retail Stores - Building material and garden	0	1,127,324	2,423,937	3,551,261	0.3%	88.9%
414 Automotive repair and maintenance- except car	0	1,833,029	1,632,729	3,465,758	0.3%	89.2%
396 Medical and diagnostic labs and outpatient an	0	27,392	3,382,003	3,409,395	0.3%	89.5%
31 Electric power generation- transmission- and	0	1,981,901	1,279,868	3,261,769	0.3%	89.8%
327 Retail Stores - Clothing and clothing accesso	0	951,011	2,248,413	3,199,424	0.3%	90.0%
339 Couriers and messengers	0	2,475,578	690,810	3,166,388	0.3%	90.3%
322 Retail Stores - Electronics and appliances	0	1,341,052	1,811,546	3,152,598	0.3%	90.6%
349 Cable and other subscription programming	0	2,735,291	365,890	3,101,181	0.3%	90.9%
398 Nursing and residential care facilities	0	0	3,043,033	3,043,033	0.3%	91.1%
411 Hotels and motels- including casino hotels	0	1,590,836	1,343,083	2,933,919	0.3%	91.4%
340 Warehousing and storage	0	2,103,716	794,201	2,897,917	0.3%	91.6%
321 Retail Stores - Furniture and home furnishing	0	1,570,422	1,199,426	2,769,847	0.2%	91.9%
400 Individual and family services	0	0	2,706,237	2,706,237	0.2%	92.1%
295 Wood kitchen cabinet and countertop manufactu	0	2,484,357	187,057	2,671,414	0.2%	92.3%
387 Investigation and security services	0	2,182,113	440,243	2,622,356	0.2%	92.6%
375 Environmental and other technical consulting	0	1,839,298	293,044	2,132,342	0.2%	92.8%
331 Retail Nonstores - Direct and electronic sale	0	671,174	1,366,999	2,038,174	0.2%	92.9%
417 Commercial and industrial machinery and equip	0	1,710,796	305,762	2,016,557	0.2%	93.1%
399 Child day care services	722,085	0	1,261,608	1,983,693	0.2%	93.3%
424 Grantmaking- giving- and social advocacy orga	0	486	1,964,251	1,964,737	0.2%	93.5%
391 Private elementary and secondary schools	0	0	1,941,089	1,941,089	0.2%	93.6%
332 Transport by air	0	780,588	1,154,750	1,935,338	0.2%	93.8%
336 Transit and ground passenger transportation	0	1,078,521	817,900	1,896,421	0.2%	94.0%
113 Printing	0	1,609,491	274,945	1,884,436	0.2%	94.1%
99 Wood windows and doors and millwork manufactu	0	1,805,691	46,630	1,852,322	0.2%	94.3%
376 Scientific research and development services	0	870,065	965,298	1,835,364	0.2%	94.4%
393 Other private educational services	0	253,114	1,455,581	1,708,694	0.1%	94.6%
149 Other plastics product manufacturing	0	1,353,886	324,541	1,678,427	0.1%	94.7%
342 Periodical publishers	0	1,379,446	296,576	1,676,022	0.1%	94.9%
395 Home health care services	0	0	1,651,054	1,651,054	0.1%	95.0%
328 Retail Stores - Sporting goods- hobby- book a	0	618,704	1,025,605	1,644,308	0.1%	95.2%
390 Waste management and remediation services	0	1,034,821	582,844	1,617,665	0.1%	95.3%
All Other Sectors	0	27,724,765	26,052,010	53,776,782	4.7%	100.0%
Total	**632,549,033**	**295,167,432**	**218,913,406**	**1,146,629,844**	**100.0%**	

Source: IMPLAN v.2; HR&A Advisors, Inc.

C-3: Total Economic Output Impacts of Universal City in the Los Angeles County Economy, 2007

IMPLAN Industry Sector	Direct	Indirect	Induced	Total	% Total	Cum %
346 Motion picture and video industries	765,673,728	85,008,768	3,409,649	854,092,160	19.5%	19.5%
40 Maint & repair construct of residential struc	696,504,448	187,904	2,533,241	699,225,600	16.0%	35.5%
409 Amusement parks- arcades- and gambling indust	466,619,264	24,256	5,393,246	472,036,768	10.8%	46.3%
380 All other miscellaneous professional- scienti	443,448,640	17,344,928	2,760,724	463,554,304	10.6%	56.9%
413 Food services and drinking places	79,926,128	16,632,848	36,354,232	132,913,208	3.0%	60.0%
360 Real estate establishments	0	71,120,728	37,361,104	108,481,832	2.5%	62.4%
319 Wholesale trade businesses	0	39,987,744	46,524,816	86,512,560	2.0%	64.4%
361 Imputed rental activity for owner-occupied dw	0	0	84,009,560	84,009,560	1.9%	66.3%
368 Accounting- tax preparation- bookkeeping- and	58,043,600	21,036,480	4,426,438	83,506,520	1.9%	68.2%
330 Retail Stores - Miscellaneous	71,626,664	2,734,984	4,543,261	78,904,912	1.8%	70.0%
404 Promoters of performing arts and sports and a	42,428,536	4,490,944	852,819	47,772,300	1.1%	71.1%
349 Cable and other subscription programming	0	40,377,216	5,401,115	45,778,332	1.0%	72.2%
386 Business support services	39,515,524	4,959,232	1,291,865	45,766,620	1.0%	73.2%
367 Legal services	0	31,954,342	11,572,996	43,527,336	1.0%	74.2%
115 Petroleum refineries	0	19,666,188	23,304,104	42,970,292	1.0%	75.2%
354 Monetary authorities and depository credit in	0	23,719,118	18,067,690	41,786,808	1.0%	76.2%
357 Insurance carriers	0	18,525,650	21,467,484	39,993,136	0.9%	77.1%
394 Offices of physicians- dentists- and other he	0	2,156	38,449,176	38,451,332	0.9%	78.0%
381 Management of companies and enterprises	0	29,982,694	8,152,590	38,135,284	0.9%	78.8%
397 Private hospitals	0	2,139	30,987,386	30,989,524	0.7%	79.5%
356 Securities- commodity contracts- investments-	0	12,631,296	17,637,638	30,268,934	0.7%	80.2%
351 Telecommunications	0	16,518,033	13,720,978	30,239,012	0.7%	80.9%
377 Advertising and related services	0	26,201,504	2,977,094	29,178,598	0.7%	81.6%
374 Management- scientific- and technical consult	0	23,935,854	3,778,398	27,714,252	0.6%	82.2%
369 Architectural- engineering- and related servi	0	23,236,302	2,155,837	25,392,138	0.6%	82.8%
320 Retail Stores - Motor vehicle and parts	0	9,436,586	15,075,832	24,512,418	0.6%	83.4%
382 Employment services	0	20,139,066	3,520,124	23,659,190	0.5%	83.9%
335 Transport by truck	0	14,410,668	6,052,502	20,463,170	0.5%	84.4%
355 Nondepository credit intermediation and relat	0	9,997,883	9,852,426	19,850,308	0.5%	84.8%
384 Office administrative services	0	17,005,252	2,671,846	19,677,098	0.4%	85.3%
324 Retail Stores - Food and beverage	0	6,542,673	12,665,995	19,208,668	0.4%	85.7%
31 Electric power generation- transmission- and	0	11,358,629	7,335,154	18,693,782	0.4%	86.1%
427 US Postal Service	0	12,876,743	3,257,082	16,133,825	0.4%	86.5%
388 Services to buildings and dwellings	0	12,456,655	3,496,695	15,953,350	0.4%	86.9%
329 Retail Stores - General merchandise	0	5,145,480	9,796,939	14,942,418	0.3%	87.2%
405 Independent artists- writers- and performers	0	14,416,100	486,982	14,903,082	0.3%	87.6%
432 Other state and local government enterprises	0	4,413,392	8,015,154	12,428,546	0.3%	87.8%
414 Automotive repair and maintenance- except car	0	6,505,122	5,794,288	12,299,409	0.3%	88.1%
396 Medical and diagnostic labs and outpatient an	0	96,088	11,863,584	11,959,672	0.3%	88.4%
348 Radio and television broadcasting	0	10,593,641	1,291,844	11,885,485	0.3%	88.7%
431 * Not unique commod (S&LG electricity)	0	7,248,987	4,617,125	11,866,111	0.3%	88.9%
32 Natural gas distribution	0	5,351,359	5,571,218	10,922,576	0.2%	89.2%
331 Retail Nonstores - Direct and electronic sale	0	3,575,360	7,282,036	10,857,396	0.2%	89.4%
39 Maint & repair construct of nonresident struc	0	8,017,758	2,782,108	10,799,866	0.2%	89.7%
327 Retail Stores - Clothing and clothing accesso	0	3,149,116	7,445,250	10,594,366	0.2%	89.9%
99 Wood windows and doors and millwork manufactu	0	9,422,401	243,325	9,665,726	0.2%	90.2%
20 Extraction of oil and natural gas	0	4,447,085	4,995,744	9,442,828	0.2%	90.4%
325 Retail Stores - Health and personal care	0	3,297,143	5,959,133	9,256,276	0.2%	90.6%
358 Insurance agencies- brokerages- and related a	0	4,735,873	4,514,020	9,249,892	0.2%	90.8%
411 Hotels and motels- including casino hotels	0	4,989,051	4,212,070	9,201,120	0.2%	91.0%
323 Retail Stores - Building material and garden	0	2,919,388	6,277,175	9,196,563	0.2%	91.2%
372 Computer systems design services	0	7,535,053	1,351,867	8,886,919	0.2%	91.4%
321 Retail Stores - Furniture and home furnishing	0	4,879,300	3,726,615	8,605,914	0.2%	91.6%
295 Wood kitchen cabinet and countertop manufactu	0	7,969,463	600,052	8,569,515	0.2%	91.8%
392 Private junior colleges- colleges- universiti	0	190,136	8,051,781	8,241,916	0.2%	92.0%
365 Commercial and industrial machinery and equip	0	7,256,630	940,412	8,197,042	0.2%	92.2%
425 Civic- social- professional- and similar orga	0	3,701,513	4,170,606	7,872,119	0.2%	92.4%
362 Automotive equipment rental and leasing	0	5,078,768	2,750,748	7,829,516	0.2%	92.5%
338 Scenic and sightseeing transportation and sup	0	4,867,822	2,333,981	7,201,803	0.2%	92.7%
149 Other plastics product manufacturing	0	5,701,923	1,366,813	7,068,736	0.2%	92.9%
339 Couriers and messengers	0	5,501,287	1,535,134	7,036,421	0.2%	93.0%
417 Commercial and industrial machinery and equip	0	5,764,179	1,030,202	6,794,382	0.2%	93.2%
332 Transport by air	0	2,733,922	4,044,379	6,778,301	0.2%	93.3%
359 Funds- trusts- and other financial vehicles	0	342,792	6,263,357	6,606,148	0.2%	93.5%
375 Environmental and other technical consulting	0	5,642,583	898,997	6,541,580	0.1%	93.6%
422 Other personal services	0	1,478,409	4,887,727	6,366,136	0.1%	93.8%
398 Nursing and residential care facilities	0	0	6,289,306	6,289,306	0.1%	93.9%
322 Retail Stores - Electronics and appliances	0	2,663,675	3,598,198	6,261,874	0.1%	94.1%
342 Periodical publishers	0	5,045,780	1,084,827	6,130,607	0.1%	94.2%
59 Animal (except poultry) slaughtering- renderi	0	2,019,383	3,979,411	5,998,794	0.1%	94.4%
366 Lessors of nonfinancial intangible assets	0	4,758,800	1,055,097	5,813,897	0.1%	94.5%
326 Retail Stores - Gasoline stations	0	1,672,555	4,040,667	5,713,222	0.1%	94.6%
350 Internet publishing and broadcasting	0	4,983,965	690,818	5,674,783	0.1%	94.7%
All Other Sectors	1,736,042	114,808,871	113,111,081	229,656,009	5.3%	100.0%
Total	**2,665,522,574**	**947,425,616**	**760,011,168**	**4,372,959,403**	**100.0%**	

Source: IMPLAN v.2; HR&A Advisors, Inc.

APPENDIX D
IMPLAN Analysis Results for Annual Operations of the NBC Universal Evolution Plan

D-1 Impacts Due to Household Spending from New Condos and Apartments
- **D-1a Employment**
- **D-1b Worker Compensation**
- **D-1c Total Economic Output**

D-2 Impacts Due to Net New Non-Residential Uses
- **D-2a Employment**
- **D-2b Worker Compensation**
- **D-2c Total Economic Output**

D-1a: Employment Impacts of Project Household Spending in the Los Angeles County Economy

IMPLAN Industry Sector	Direct	Indirect	Induced	Total	% Total	Cum %
413 Food services and drinking places	203.9	21.6	50	275.5	10.5%	10.5%
394 Offices of physicians- dentists- and other he	119.1	0.1	27.2	146.3	5.6%	16.0%
319 Wholesale trade businesses	81.4	23.4	22.6	127.4	4.8%	20.8%
397 Private hospitals	98.3	0.2	20.8	119.4	4.5%	25.4%
426 Private household operations	75.8	0	14	89.8	3.4%	28.8%
398 Nursing and residential care facilities	67.7	0	13.5	81.2	3.1%	31.9%
329 Retail Stores - General merchandise	65.2	1.3	14.3	80.8	3.1%	34.9%
324 Retail Stores - Food and beverage	65	1.3	14.2	80.5	3.1%	38.0%
360 Real estate establishments	15.2	44.4	15.9	75.6	2.9%	40.9%
400 Individual and family services	56.2	0	9.9	66.2	2.5%	43.4%
392 Private junior colleges- colleges- universiti	52.6	0.7	9.4	62.7	2.4%	45.8%
320 Retail Stores - Motor vehicle and parts	49.8	1.2	11	61.9	2.3%	48.1%
382 Employment services	2.6	38.2	8.7	49.6	1.9%	50.0%
331 Retail Nonstores - Direct and electronic sale	35.9	0.7	7.9	44.5	1.7%	51.7%
327 Retail Stores - Clothing and clothing accesso	33.9	0.6	7.4	41.9	1.6%	53.3%
399 Child day care services	34.8	0	5.9	40.8	1.5%	54.8%
330 Retail Stores - Miscellaneous	31.7	0.7	7	39.4	1.5%	56.3%
396 Medical and diagnostic labs and outpatient an	26.2	3.6	6.5	36.3	1.4%	57.7%
391 Private elementary and secondary schools	30.6	0	4.6	35.2	1.3%	59.0%
357 Insurance carriers	19.2	9.9	5.8	34.9	1.3%	60.3%
325 Retail Stores - Health and personal care	27.3	0.6	6	33.9	1.3%	61.6%
425 Civic- social- professional- and similar orga	20.1	8.1	5.4	33.7	1.3%	62.9%
323 Retail Stores - Building material and garden	25.1	0.4	5.5	31.1	1.2%	64.1%
356 Securities- commodity contracts- investments-	10.5	14.2	6.3	30.9	1.2%	65.3%
414 Automotive repair and maintenance- except car	20.8	4.7	5.1	30.5	1.2%	66.4%
354 Monetary authorities and depository credit in	12.5	11.7	5.8	30	1.1%	67.6%
393 Other private educational services	22.1	1.9	4.5	28.5	1.1%	68.6%
367 Legal services	12.8	9.7	5.2	27.7	1.1%	69.7%
388 Services to buildings and dwellings	2.4	20.4	4.7	27.5	1.0%	70.7%
401 Community food- housing- and other relief ser	23.1	0	4.1	27.2	1.0%	71.8%
395 Home health care services	21.9	0	4.6	26.6	1.0%	72.8%
419 Personal care services	21.4	0.3	4.7	26.4	1.0%	73.8%
409 Amusement parks- arcades- and gambling indust	20.6	0	3.8	24.5	0.9%	74.7%
335 Transport by truck	12.3	6	3.5	21.8	0.8%	75.5%
355 Nondepository credit intermediation and relat	3.3	14.7	3.7	21.7	0.8%	76.4%
411 Hotels and motels- including casino hotels	14.6	3.5	3.2	21.3	0.8%	77.2%
424 Grantmaking- giving- and social advocacy orga	18	0	3.2	21.3	0.8%	78.0%
368 Accounting- tax preparation- bookkeeping- and	3.9	13.1	3.8	20.8	0.8%	78.8%
328 Retail Stores - Sporting goods- hobby- book a	14.9	0.3	3.3	18.5	0.7%	79.5%
322 Retail Stores - Electronics and appliances	13.2	0.4	2.9	16.5	0.6%	80.1%
321 Retail Stores - Furniture and home furnishing	12.7	0.7	2.9	16.2	0.6%	80.7%
381 Management of companies and enterprises	0	13.2	2.9	16.1	0.6%	81.3%
407 Fitness and recreational sports centers	11.5	0.9	2.5	14.9	0.6%	81.9%
421 Dry-cleaning and laundry services	9.7	2.8	2.3	14.8	0.6%	82.5%
427 US Postal Service	2.4	9.9	2.5	14.7	0.6%	83.0%
358 Insurance agencies- brokerages- and related a	0	12.1	2.4	14.6	0.6%	83.6%
432 Other state and local government enterprises	9.3	2.5	2.6	14.5	0.6%	84.1%
422 Other personal services	11.8	0.4	2.2	14.4	0.5%	84.7%
336 Transit and ground passenger transportation	9.8	1.6	2.3	13.8	0.5%	85.2%
423 Religious organizations	11.8	0	2.1	13.8	0.5%	85.7%
326 Retail Stores - Gasoline stations	11	0.2	2.4	13.5	0.5%	86.2%
351 Telecommunications	7.2	3.4	2.6	13.2	0.5%	86.7%
374 Management- scientific- and technical consult	0	10.6	2.3	12.9	0.5%	87.2%
410 Other amusement and recreation industries	9	0.7	1.8	11.5	0.4%	87.7%
39 Maint & repair construct of nonresident struc	0	9.1	2	11.1	0.4%	88.1%
403 Spectator sports companies	5.6	2.3	1.8	9.7	0.4%	88.4%
339 Couriers and messengers	0.6	7.3	1.6	9.5	0.4%	88.8%
377 Advertising and related services	0.1	7.7	1.7	9.5	0.4%	89.2%
338 Scenic and sightseeing transportation and sup	3.7	4	1.5	9.2	0.3%	89.5%
387 Investigation and security services	0	7.5	1.6	9.1	0.3%	89.9%
359 Funds- trusts- and other financial vehicles	6.5	0.3	1.2	8	0.3%	90.2%
340 Warehousing and storage	0.1	6.4	1.4	7.9	0.3%	90.5%
431 * Not unique commod (S&LG electricity)	3.8	2.5	1.6	7.9	0.3%	90.8%
346 Motion picture and video industries	4.2	2.1	1.3	7.6	0.3%	91.0%
376 Scientific research and development services	2.9	3.4	1.3	7.6	0.3%	91.3%
386 Business support services	0	6.2	1.3	7.6	0.3%	91.6%
369 Architectural- engineering- and related servi	0	6.2	1.4	7.5	0.3%	91.9%
332 Transport by air	5.2	0.6	1.1	6.9	0.3%	92.2%
415 Car washes	5.3	0.4	1.1	6.9	0.3%	92.4%
362 Automotive equipment rental and leasing	4.2	1.4	1.1	6.8	0.3%	92.7%
404 Promoters of performing arts and sports and a	3.8	1.3	1	6.1	0.2%	92.9%
62 Bread and bakery product manufacturing	4	0.7	1.2	5.8	0.2%	93.1%
363 General and consumer goods rental except vide	3.9	0.9	0.9	5.7	0.2%	93.4%
All Other Sectors	71.60	72.90	31.00	174.90	6.6%	100.0%
Total	**1,717.60**	**460.1**	**456.8**	**2,634.50**	**100.0%**	

Source: IMPLAN v.2; HR&A Advisors, Inc.

D-1b: Worker Compensation Impacts of Project Household Spending in the Los Angeles County Economy (in 2007 dollars)

IMPLAN Industry Sector	Direct	Indirect	Induced	Total	% Total	Cum %
397 Private hospitals	6,944,117	12,156	1,472,026	8,428,299	8.0%	8.0%
394 Offices of physicians- dentists- and other he	6,468,201	5,686	1,475,454	7,949,341	7.5%	15.5%
319 Wholesale trade businesses	4,865,201	1,398,812	1,351,551	7,615,565	7.2%	22.6%
413 Food services and drinking places	4,399,468	466,316	1,078,662	5,944,445	5.6%	28.2%
320 Retail Stores - Motor vehicle and parts	2,613,641	62,569	575,530	3,251,740	3.1%	31.3%
356 Securities- commodity contracts- investments-	1,047,959	1,414,188	624,728	3,086,875	2.9%	34.2%
357 Insurance carriers	1,500,841	771,323	453,741	2,725,905	2.6%	36.8%
324 Retail Stores - Food and beverage	1,992,696	39,321	437,063	2,469,079	2.3%	39.1%
392 Private junior colleges- colleges- universiti	1,900,411	26,522	337,940	2,264,873	2.1%	41.3%
329 Retail Stores - General merchandise	1,686,277	33,409	369,879	2,089,565	2.0%	43.2%
354 Monetary authorities and depository credit in	843,622	791,486	391,165	2,026,273	1.9%	45.1%
367 Legal services	896,818	679,130	361,806	1,937,754	1.8%	47.0%
381 Management of companies and enterprises	0	1,507,561	332,040	1,839,601	1.7%	48.7%
355 Nondepository credit intermediation and relat	266,168	1,183,085	294,081	1,743,334	1.6%	50.4%
396 Medical and diagnostic labs and outpatient an	1,168,668	159,939	287,245	1,615,852	1.5%	51.9%
398 Nursing and residential care facilities	1,294,662	0	258,461	1,553,124	1.5%	53.3%
400 Individual and family services	1,300,214	0	229,849	1,530,063	1.4%	54.8%
425 Civic- social- professional- and similar orga	824,806	332,286	222,028	1,379,121	1.3%	56.1%
391 Private elementary and secondary schools	1,104,643	0	164,841	1,269,485	1.2%	57.3%
432 Other state and local government enterprises	815,172	218,335	230,437	1,263,944	1.2%	58.5%
382 Employment services	66,385	972,479	222,342	1,261,206	1.2%	59.7%
325 Retail Stores - Health and personal care	1,011,939	21,573	222,285	1,255,797	1.2%	60.9%
427 US Postal Service	199,822	830,124	210,624	1,240,570	1.2%	62.0%
323 Retail Stores - Building material and garden	940,549	16,442	205,853	1,162,845	1.1%	63.1%
424 Grantmaking- giving- and social advocacy orga	942,954	1,753	166,830	1,111,537	1.0%	64.2%
327 Retail Stores - Clothing and clothing accesso	873,169	14,471	190,947	1,078,586	1.0%	65.2%
360 Real estate establishments	215,208	627,674	225,326	1,068,208	1.0%	66.2%
431 * Not unique commod (S&LG electricity)	498,255	331,546	208,509	1,038,310	1.0%	67.2%
351 Telecommunications	556,323	260,101	197,382	1,013,807	1.0%	68.1%
358 Insurance agencies- brokerages- and related a	0	828,400	166,107	994,506	0.9%	69.1%
322 Retail Stores - Electronics and appliances	696,078	19,422	153,846	869,346	0.8%	69.9%
368 Accounting- tax preparation- bookkeeping- and	158,080	529,013	152,176	839,270	0.8%	70.7%
414 Automotive repair and maintenance- except car	568,502	127,312	138,666	834,481	0.8%	71.5%
335 Transport by truck	456,077	222,036	130,382	808,495	0.8%	72.2%
395 Home health care services	665,718	101	140,230	806,050	0.8%	73.0%
330 Retail Stores - Miscellaneous	643,497	13,961	141,401	798,859	0.8%	73.7%
393 Other private educational services	604,465	52,025	123,616	780,107	0.7%	74.5%
409 Amusement parks- arcades- and gambling indust	652,994	849	120,089	773,932	0.7%	75.2%
411 Hotels and motels- including casino hotels	511,723	122,244	114,066	748,032	0.7%	75.9%
399 Child day care services	628,491	0	107,150	735,641	0.7%	76.6%
374 Management- scientific- and technical consult	1,275	599,875	128,709	729,859	0.7%	77.3%
426 Private household operations	609,862	0	112,371	722,234	0.7%	78.0%
388 Services to buildings and dwellings	59,736	517,911	118,648	696,294	0.7%	78.6%
346 Motion picture and video industries	379,649	187,803	115,429	682,882	0.6%	79.3%
331 Retail Nonstores - Direct and electronic sale	529,153	10,570	116,093	655,816	0.6%	79.9%
338 Scenic and sightseeing transportation and sup	258,446	279,939	105,150	643,536	0.6%	80.5%
401 Community food- housing- and other relief ser	542,076	2	95,803	637,882	0.6%	81.1%
332 Transport by air	477,189	53,418	98,071	628,678	0.6%	81.7%
321 Retail Stores - Furniture and home furnishing	451,020	23,104	101,861	575,986	0.5%	82.2%
359 Funds- trusts- and other financial vehicles	463,082	23,871	86,067	573,021	0.5%	82.8%
39 Maint & repair construct of nonresident struc	0	443,483	99,196	542,679	0.5%	83.3%
31 Electric power generation- transmission- and	261,543	171,672	108,705	541,919	0.5%	83.8%
377 Advertising and related services	3,154	427,908	92,533	523,594	0.5%	84.3%
328 Retail Stores - Sporting goods- hobby- book a	395,901	9,099	87,100	492,099	0.5%	84.8%
419 Personal care services	392,305	4,806	87,018	484,129	0.5%	85.2%
369 Architectural- engineering- and related servi	551	393,869	86,236	480,655	0.5%	85.7%
376 Scientific research and development services	181,895	214,544	81,981	478,420	0.5%	86.1%
326 Retail Stores - Gasoline stations	348,414	5,514	76,137	430,065	0.4%	86.5%
336 Transit and ground passenger transportation	294,489	48,522	69,468	412,480	0.4%	86.9%
340 Warehousing and storage	5,819	310,777	67,449	384,045	0.4%	87.3%
384 Office administrative services	9,603	303,271	66,537	379,411	0.4%	87.6%
423 Religious organizations	320,529	0	56,567	377,096	0.4%	88.0%
339 Couriers and messengers	19,997	263,708	58,669	342,374	0.3%	88.3%
421 Dry-cleaning and laundry services	219,525	63,019	51,160	333,705	0.3%	88.6%
430 * Not unique commod (S&LG passenger transit)	237,190	39,081	55,951	332,222	0.3%	89.0%
20 Extraction of oil and natural gas	23,773	225,575	60,455	309,803	0.3%	89.2%
422 Other personal services	247,333	8,639	45,895	301,867	0.3%	89.5%
407 Fitness and recreational sports centers	228,461	17,419	50,317	296,196	0.3%	89.8%
410 Other amusement and recreation industries	227,483	16,527	45,333	289,343	0.3%	90.1%
115 Petroleum refineries	160,724	70,445	56,127	287,296	0.3%	90.4%
386 Business support services	0	228,356	49,448	277,804	0.3%	90.6%
372 Computer systems design services	254	221,755	48,087	270,096	0.3%	90.9%
390 Waste management and remediation services	94,912	116,687	49,503	261,102	0.2%	91.1%
All Other Sectors	4,082,697	3,653,805	1,677,796	9,414,291	8.9%	100.0%
Total	**64,351,854**	**23,048,624**	**18,592,224**	**105,992,702**	**100.0%**	

Source: IMPLAN v.2; HR&A Advisors, Inc.

D-1c: Total Economic Output Impacts of Project Household Spending in the Los Angeles County Economy (in 2007 dollars)

IMPLAN Industry Sector	Direct	Indirect	Induced	Total	% Total	Cum %
361 Imputed rental activity for owner-occupied dw	37,215,468	0	7,134,571	44,350,040	11.9%	11.9%
319 Wholesale trade businesses	14,223,096	4,089,336	3,951,172	22,263,604	6.0%	17.9%
394 Offices of physicians- dentists- and other he	14,315,713	12,585	3,265,542	17,593,840	4.7%	22.6%
413 Food services and drinking places	12,592,715	1,334,748	3,087,482	17,014,944	4.6%	27.2%
397 Private hospitals	12,415,692	21,734	2,631,901	15,069,327	4.0%	31.2%
360 Real estate establishments	3,030,861	8,839,781	3,173,351	15,043,992	4.0%	35.2%
357 Insurance carriers	6,030,510	3,099,244	1,823,170	10,952,924	2.9%	38.2%
115 Petroleum refineries	5,667,653	2,484,136	1,979,243	10,131,031	2.7%	40.9%
354 Monetary authorities and depository credit in	3,309,412	3,104,890	1,534,488	7,948,790	2.1%	43.0%
356 Securities- commodity contracts- investments-	2,512,774	3,390,909	1,497,959	7,401,641	2.0%	45.0%
320 Retail Stores - Motor vehicle and parts	5,814,276	139,191	1,280,317	7,233,784	1.9%	46.9%
12001 State/Local Govt NonEducation	6,796,619	0	0	6,796,619	1.8%	48.8%
324 Retail Stores - Food and beverage	4,904,252	96,773	1,075,662	6,076,687	1.6%	50.4%
351 Telecommunications	3,284,566	1,535,652	1,165,358	5,985,576	1.6%	52.0%
396 Medical and diagnostic labs and outpatient an	4,099,522	561,043	1,007,615	5,668,179	1.5%	53.5%
367 Legal services	2,436,365	1,844,977	982,910	5,264,253	1.4%	54.9%
355 Nondepository credit intermediation and relat	757,324	3,366,212	836,743	4,960,279	1.3%	56.3%
329 Retail Stores - General merchandise	3,793,111	75,151	832,005	4,700,267	1.3%	57.5%
392 Private junior colleges- colleges- universiti	3,845,526	53,668	683,830	4,583,024	1.2%	58.8%
381 Management of companies and enterprises	0	3,143,715	692,403	3,836,117	1.0%	59.8%
432 Other state and local government enterprises	2,408,132	644,992	680,744	3,733,868	1.0%	60.8%
327 Retail Stores - Clothing and clothing accesso	2,891,355	47,917	632,289	3,571,561	1.0%	61.7%
359 Funds- trusts- and other financial vehicles	2,861,883	147,526	531,901	3,541,310	0.9%	62.7%
331 Retail Nonstores - Direct and electronic sale	2,818,811	56,309	618,428	3,493,548	0.9%	63.6%
398 Nursing and residential care facilities	2,675,793	0	534,184	3,209,978	0.9%	64.5%
335 Transport by truck	1,798,125	875,395	514,044	3,187,564	0.9%	65.3%
31 Electric power generation- transmission- and	1,498,950	983,881	623,006	3,105,837	0.8%	66.2%
323 Retail Stores - Building material and garden	2,435,704	42,581	533,089	3,011,374	0.8%	67.0%
414 Automotive repair and maintenance- except car	2,017,523	451,810	492,104	2,961,436	0.8%	67.8%
409 Amusement parks- arcades- and gambling indust	2,490,685	3,240	458,051	2,951,976	0.8%	68.6%
400 Individual and family services	2,487,522	0	439,738	2,927,260	0.8%	69.4%
325 Retail Stores - Health and personal care	2,303,905	49,116	506,080	2,859,101	0.8%	70.1%
422 Other personal services	2,237,063	78,138	415,109	2,730,310	0.7%	70.9%
349 Cable and other subscription programming	257,328	1,904,159	458,709	2,620,196	0.7%	71.6%
32 Natural gas distribution	1,303,896	666,288	473,182	2,443,366	0.7%	72.2%
411 Hotels and motels- including casino hotels	1,604,825	383,370	357,724	2,345,919	0.6%	72.8%
358 Insurance agencies- brokerages- and related a	0	1,911,890	383,363	2,295,253	0.6%	73.5%
332 Transport by air	1,671,301	187,090	343,482	2,201,873	0.6%	74.1%
425 Civic- social- professional- and similar orga	1,315,829	530,102	354,206	2,200,138	0.6%	74.6%
330 Retail Stores - Miscellaneous	1,755,896	38,096	385,838	2,179,830	0.6%	75.2%
20 Extraction of oil and natural gas	166,848	1,583,181	424,296	2,174,325	0.6%	75.8%
368 Accounting- tax preparation- bookkeeping- and	390,522	1,306,879	375,938	2,073,338	0.6%	76.4%
424 Grantmaking- giving- and social advocacy orga	1,674,239	3,113	296,210	1,973,561	0.5%	76.9%
431 * Not unique commod (S&LG electricity)	937,092	623,554	392,152	1,952,798	0.5%	77.4%
326 Retail Stores - Gasoline stations	1,570,320	24,853	343,154	1,938,327	0.5%	77.9%
391 Private elementary and secondary schools	1,618,070	0	241,458	1,859,528	0.5%	78.4%
374 Management- scientific- and technical consult	3,179	1,495,615	320,899	1,819,692	0.5%	78.9%
321 Retail Stores - Furniture and home furnishing	1,401,320	71,784	316,484	1,789,588	0.5%	79.4%
393 Other private educational services	1,380,769	118,841	282,374	1,781,984	0.5%	79.9%
399 Child day care services	1,511,024	0	257,610	1,768,634	0.5%	80.4%
388 Services to buildings and dwellings	149,516	1,296,313	296,971	1,742,800	0.5%	80.8%
322 Retail Stores - Electronics and appliances	1,382,592	38,577	305,577	1,726,746	0.5%	81.3%
346 Motion picture and video industries	952,435	471,145	289,580	1,713,160	0.5%	81.8%
382 Employment services	89,262	1,307,611	298,965	1,695,838	0.5%	82.2%
59 Animal (except poultry) slaughtering- renderi	945,459	398,238	337,988	1,681,685	0.5%	82.7%
395 Home health care services	1,381,291	211	290,962	1,672,463	0.4%	83.1%
427 US Postal Service	262,434	1,090,233	276,621	1,629,287	0.4%	83.5%
419 Personal care services	1,185,754	14,525	263,015	1,463,293	0.4%	83.9%
377 Advertising and related services	8,618	1,169,231	252,840	1,430,689	0.4%	84.3%
133 Pharmaceutical preparation manufacturing	760,754	325,843	314,816	1,401,412	0.4%	84.7%
362 Automotive equipment rental and leasing	871,205	291,819	233,619	1,396,642	0.4%	85.1%
380 All other miscellaneous professional- scienti	313,348	813,272	234,470	1,361,090	0.4%	85.4%
40 Maint & repair construct of residential struc	0	1,108,857	215,131	1,323,989	0.4%	85.8%
384 Office administrative services	32,749	1,034,281	226,921	1,293,951	0.3%	86.1%
39 Maint & repair construct of nonresident struc	0	1,056,383	236,287	1,292,670	0.3%	86.5%
401 Community food- housing- and other relief ser	1,077,248	4	190,387	1,267,639	0.3%	86.8%
328 Retail Stores - Sporting goods- hobby- book a	977,434	22,464	215,039	1,214,937	0.3%	87.1%
338 Scenic and sightseeing transportation and sup	487,208	527,725	198,223	1,213,157	0.3%	87.5%
138 Soap and cleaning compound manufacturing	801,512	171,496	226,459	1,199,467	0.3%	87.8%
139 Toilet preparation manufacturing	874,842	77,953	232,570	1,185,365	0.3%	88.1%
376 Scientific research and development services	404,048	476,570	182,106	1,062,724	0.3%	88.4%
336 Transit and ground passenger transportation	749,963	123,570	176,911	1,050,443	0.3%	88.7%
369 Architectural- engineering- and related servi	1,169	836,262	183,097	1,020,528	0.3%	89.0%
55 Fluid milk and butter manufacturing	525,155	271,482	199,439	996,076	0.3%	89.2%
All Other Sectors	17,722,528	15,409,501	7,047,797	40,179,837	10.8%	100.0%
Total	**228,489,888**	**79,757,031**	**64,547,359**	**372,794,279**	**100.0%**	

Source: IMPLAN v.2; HR&A Advisors, Inc.

D-2a: Employment Impacts of Project Net New Non-Residential Area in the Los Angeles County Economy

IMPLAN Industry Sector	Direct	Indirect	Induced	Total	% Total	Cum %
346 Motion picture and video industries	2,419.00	266.6	7.9	2,693.50	27.3%	27.3%
329 Retail Stores - General merchandise	734	1.6	62	797.6	8.1%	35.3%
409 Amusement parks- arcades- and gambling indust	561	0	16.1	577.1	5.8%	41.2%
411 Hotels and motels- including casino hotels	423	18.2	19.9	461.1	4.7%	45.8%
368 Accounting- tax preparation- bookkeeping- and	332	76.4	22.4	430.8	4.4%	50.2%
374 Management- scientific- and technical consult	332	83.4	13.7	429.1	4.3%	54.5%
377 Advertising and related services	332	85.2	9.4	426.6	4.3%	58.9%
413 Food services and drinking places	0	107.4	310.9	418.3	4.2%	63.1%
360 Real estate establishments	0	172.9	94.8	267.6	2.7%	65.8%
382 Employment services	0	195.7	41.4	237.1	2.4%	68.2%
394 Offices of physicians- dentists- and other he	0	0	167.7	167.7	1.7%	69.9%
319 Wholesale trade businesses	0	29.8	137.5	167.2	1.7%	71.6%
397 Private hospitals	0	0	140.6	140.6	1.4%	73.0%
399 Child day care services	60	0	35.7	95.7	1.0%	74.0%
388 Services to buildings and dwellings	0	68.2	24.7	92.9	0.9%	74.9%
324 Retail Stores - Food and beverage	0	1.1	90.6	91.7	0.9%	75.9%
426 Private household operations	0	0	91.5	91.5	0.9%	76.8%
367 Legal services	0	53.6	31.4	84.9	0.9%	77.6%
398 Nursing and residential care facilities	0	0	80.6	80.6	0.8%	78.5%
400 Individual and family services	0	0	65.4	65.4	0.7%	79.1%
427 US Postal Service	0	48.8	15.8	64.6	0.7%	79.8%
357 Insurance carriers	0	23.2	37	60.2	0.6%	80.4%
381 Management of companies and enterprises	0	43.9	15.6	59.5	0.6%	81.0%
425 Civic- social- professional- and similar orga	0	19.1	40.2	59.3	0.6%	81.6%
354 Monetary authorities and depository credit in	0	28.8	30.1	59	0.6%	82.2%
356 Securities- commodity contracts- investments-	0	15.9	38.9	54.8	0.6%	82.7%
392 Private junior colleges- colleges- universiti	0	0.8	52.4	53.2	0.5%	83.3%
414 Automotive repair and maintenance- except car	0	18.8	31.8	50.6	0.5%	83.8%
320 Retail Stores - Motor vehicle and parts	0	0.7	49.1	49.8	0.5%	84.3%
327 Retail Stores - Clothing and clothing accesso	0	0.5	47.1	47.5	0.5%	84.8%
330 Retail Stores - Miscellaneous	0	0.6	44.3	44.8	0.5%	85.2%
339 Couriers and messengers	0	34.8	9.5	44.2	0.4%	85.7%
387 Investigation and security services	0	34.4	9.6	43.9	0.4%	86.1%
331 Retail Nonstores - Direct and electronic sale	0	0.5	42.5	43	0.4%	86.6%
405 Independent artists- writers- and performers	0	40.9	1.1	42	0.4%	87.0%
396 Medical and diagnostic labs and outpatient an	0	0.1	40.7	40.7	0.4%	87.4%
325 Retail Stores - Health and personal care	0	0.5	38.1	38.6	0.4%	87.8%
39 Maint & repair construct of nonresident struc	0	27	9.6	36.6	0.4%	88.2%
384 Office administrative services	0	29.1	5.3	34.4	0.3%	88.5%
355 Nondepository credit intermediation and relat	0	12.6	20.5	33.1	0.3%	88.8%
391 Private elementary and secondary schools	0	0	33	33	0.3%	89.2%
386 Business support services	0	25	7.9	32.9	0.3%	89.5%
335 Transport by truck	0	16.1	15.7	31.8	0.3%	89.8%
323 Retail Stores - Building material and garden	0	0.3	30.7	31.1	0.3%	90.1%
395 Home health care services	0	0	31	31	0.3%	90.5%
393 Other private educational services	0	1	29.1	30.2	0.3%	90.8%
351 Telecommunications	0	15.4	14.8	30.1	0.3%	91.1%
404 Promoters of performing arts and sports and a	0	23.6	6.2	29.9	0.3%	91.4%
401 Community food- housing- and other relief ser	0	0	29.1	29.1	0.3%	91.7%
375 Environmental and other technical consulting	0	22.4	3.6	26	0.3%	91.9%
380 All other miscellaneous professional- scienti	0	22	3.8	25.9	0.3%	92.2%
358 Insurance agencies- brokerages- and related a	0	10.1	15.4	25.5	0.3%	92.4%
362 Automotive equipment rental and leasing	0	16.8	7.5	24.3	0.2%	92.7%
419 Personal care services	0	0	23.7	23.7	0.2%	92.9%
338 Scenic and sightseeing transportation and sup	0	13.6	9.9	23.5	0.2%	93.2%
432 Other state and local government enterprises	0	6.6	16.6	23.1	0.2%	93.4%
369 Architectural- engineering- and related servi	0	13.6	7.7	21.3	0.2%	93.6%
328 Retail Stores - Sporting goods- hobby- book a	0	0.3	20.8	21.1	0.2%	93.8%
424 Grantmaking- giving- and social advocacy orga	0	0	20.8	20.8	0.2%	94.0%
372 Computer systems design services	0	16.1	4.4	20.5	0.2%	94.2%
421 Dry-cleaning and laundry services	0	6.2	14.3	20.5	0.2%	94.5%
431 * Not unique commod (S&LG electricity)	0	11	9.2	20.3	0.2%	94.7%
407 Fitness and recreational sports centers	0	4	15.5	19.5	0.2%	94.9%
349 Cable and other subscription programming	0	17	2.2	19.3	0.2%	95.1%
336 Transit and ground passenger transportation	0	7.8	11.4	19.2	0.2%	95.2%
322 Retail Stores - Electronics and appliances	0	0.3	18.5	18.8	0.2%	95.4%
321 Retail Stores - Furniture and home furnishing	0	0.5	18.2	18.7	0.2%	95.6%
422 Other personal services	0	2.6	14.3	16.9	0.2%	95.8%
341 Newspaper publishers	0	13.7	2.8	16.6	0.2%	96.0%
348 Radio and television broadcasting	0	14.9	1.8	16.6	0.2%	96.1%
403 Spectator sports companies	0	10.1	4.2	14.3	0.1%	96.3%
113 Printing	0	12.1	2	14.1	0.1%	96.4%
423 Religious organizations	0	0	13.6	13.6	0.1%	96.6%
All Other Sectors	0.00	149.20	190.30	339.80	3.4%	100.0%
Total	**5,193.00**	**1,993.40**	**2,693.40**	**9,879.80**	**100.0%**	

Source: IMPLAN v.2; HR&A Advisors, Inc.

D-2b: Worker Compensation Impacts of Project Net New Non-Residential Area in the Los Angeles County Economy (in 2007 dollars)

IMPLAN Industry Sector	Direct	Indirect	Induced	Total	% Total	Cum %
346 Motion picture and video industries	220,182,640	24,266,490	715,986	245,165,120	45.7%	45.7%
374 Management- scientific- and technical consult	18,706,662	4,698,417	771,762	24,176,840	4.5%	50.2%
377 Advertising and related services	18,268,688	4,689,920	515,668	23,474,276	4.4%	54.6%
329 Retail Stores - General merchandise	18,874,862	42,234	1,594,165	20,511,260	3.8%	58.4%
409 Amusement parks- arcades- and gambling indust	17,647,788	371	506,963	18,155,124	3.4%	61.8%
368 Accounting- tax preparation- bookkeeping- and	13,327,521	3,068,731	898,095	17,294,348	3.2%	65.0%
411 Hotels and motels- including casino hotels	14,764,137	635,656	693,290	16,093,083	3.0%	68.0%
319 Wholesale trade businesses	0	1,770,463	8,172,264	9,942,726	1.9%	69.9%
397 Private hospitals	0	101	9,874,718	9,874,819	1.8%	71.7%
394 Offices of physicians- dentists- and other he	0	71	9,056,177	9,056,248	1.7%	73.4%
413 Food services and drinking places	0	2,304,716	6,670,626	8,975,341	1.7%	75.1%
381 Management of companies and enterprises	0	4,999,718	1,776,102	6,775,819	1.3%	76.3%
382 Employment services	0	4,951,401	1,046,252	5,997,653	1.1%	77.4%
367 Legal services	0	3,731,040	2,186,877	5,917,917	1.1%	78.5%
356 Securities- commodity contracts- investments-	0	1,581,758	3,860,689	5,442,446	1.0%	79.6%
427 US Postal Service	0	4,064,130	1,317,991	5,382,121	1.0%	80.6%
357 Insurance carriers	0	1,800,160	2,875,386	4,675,545	0.9%	81.4%
354 Monetary authorities and depository credit in	0	1,939,307	2,026,541	3,965,849	0.7%	82.2%
360 Real estate establishments	0	2,429,391	1,332,219	3,761,611	0.7%	82.9%
405 Independent artists- writers- and performers	0	3,253,999	90,779	3,344,778	0.6%	83.5%
324 Retail Stores - Food and beverage	0	32,426	2,764,071	2,796,497	0.5%	84.0%
431 * Not unique commod (S&LG electricity)	0	1,453,108	1,220,533	2,673,641	0.5%	84.5%
355 Nondepository credit intermediation and relat	0	1,005,891	1,633,405	2,639,297	0.5%	85.0%
320 Retail Stores - Motor vehicle and parts	0	36,444	2,562,711	2,599,155	0.5%	85.5%
384 Office administrative services	0	2,179,125	395,030	2,574,155	0.5%	86.0%
398 Nursing and residential care facilities	0	0	2,498,919	2,498,919	0.5%	86.4%
425 Civic- social- professional- and similar orga	0	778,341	1,637,123	2,415,464	0.5%	86.9%
388 Services to buildings and dwellings	0	1,718,700	622,567	2,341,267	0.4%	87.3%
351 Telecommunications	0	1,177,643	1,131,495	2,309,139	0.4%	87.8%
348 Radio and television broadcasting	0	1,968,700	233,289	2,201,989	0.4%	88.2%
432 Other state and local government enterprises	0	574,532	1,452,157	2,026,689	0.4%	88.5%
392 Private junior colleges- colleges- universiti	0	30,422	1,880,346	1,910,768	0.4%	88.9%
396 Medical and diagnostic labs and outpatient an	0	2,464	1,800,415	1,802,879	0.3%	89.2%
358 Insurance agencies- brokerages- and related a	0	685,166	1,044,806	1,729,972	0.3%	89.6%
399 Child day care services	1,077,030	0	641,380	1,718,410	0.3%	89.9%
39 Maint & repair construct of nonresident struc	0	1,264,735	451,871	1,716,606	0.3%	90.2%
338 Scenic and sightseeing transportation and sup	0	948,375	690,198	1,638,572	0.3%	90.5%
349 Cable and other subscription programming	0	1,446,021	188,042	1,634,063	0.3%	90.8%
339 Couriers and messengers	0	1,246,689	338,905	1,585,594	0.3%	91.1%
400 Individual and family services	0	0	1,502,768	1,502,768	0.3%	91.4%
325 Retail Stores - Health and personal care	0	17,653	1,404,708	1,422,361	0.3%	91.6%
414 Automotive repair and maintenance- except car	0	510,908	864,557	1,375,465	0.3%	91.9%
369 Architectural- engineering- and related servi	0	863,168	486,705	1,349,873	0.3%	92.2%
327 Retail Stores - Clothing and clothing accesso	0	11,588	1,206,663	1,218,251	0.2%	92.4%
386 Business support services	0	911,759	289,497	1,201,256	0.2%	92.6%
391 Private elementary and secondary schools	0	0	1,182,551	1,182,551	0.2%	92.8%
335 Transport by truck	0	596,574	579,060	1,175,635	0.2%	93.0%
323 Retail Stores - Building material and garden	0	12,082	1,144,102	1,156,184	0.2%	93.3%
424 Grantmaking- giving- and social advocacy orga	0	128	1,083,176	1,083,305	0.2%	93.5%
375 Environmental and other technical consulting	0	910,478	145,606	1,056,084	0.2%	93.7%
372 Computer systems design services	0	808,901	220,485	1,029,386	0.2%	93.9%
387 Investigation and security services	0	787,981	219,127	1,007,108	0.2%	94.0%
322 Retail Stores - Electronics and appliances	0	16,352	971,871	988,222	0.2%	94.2%
395 Home health care services	0	0	936,070	936,070	0.2%	94.4%
332 Transport by air	0	309,793	616,879	926,672	0.2%	94.6%
380 All other miscellaneous professional- scienti	0	780,887	136,182	917,070	0.2%	94.7%
404 Promoters of performing arts and sports and a	0	718,596	189,974	908,570	0.2%	94.9%
330 Retail Stores - Miscellaneous	0	11,506	893,146	904,651	0.2%	95.1%
342 Periodical publishers	0	725,234	152,694	877,928	0.2%	95.2%
393 Other private educational services	0	28,383	792,754	821,138	0.2%	95.4%
430 * Not unique commod (S&LG passenger transit)	0	316,455	460,792	777,246	0.1%	95.5%
426 Private household operations	0	0	735,716	735,716	0.1%	95.7%
362 Automotive equipment rental and leasing	0	506,597	227,777	734,374	0.1%	95.8%
113 Printing	0	627,019	106,399	733,418	0.1%	96.0%
341 Newspaper publishers	0	576,683	118,433	695,115	0.1%	96.1%
401 Community food- housing- and other relief ser	0	3	678,869	678,872	0.1%	96.2%
321 Retail Stores - Furniture and home furnishing	0	19,136	641,853	660,990	0.1%	96.3%
331 Retail Nonstores - Direct and electronic sale	0	6,940	622,449	629,389	0.1%	96.4%
340 Warehousing and storage	0	428,594	178,902	607,495	0.1%	96.6%
359 Funds- trusts- and other financial vehicles	0	19,649	586,541	606,189	0.1%	96.7%
376 Scientific research and development services	0	197,105	400,454	597,559	0.1%	96.8%
336 Transit and ground passenger transportation	0	232,563	338,637	571,199	0.1%	96.9%
All Other Sectors	0	6,724,399	9,952,338	16,676,743	3.1%	100.0%
Total	**322,849,328**	**104,453,970**	**109,237,548**	**536,540,853**	**100.0%**	

Source: IMPLAN v.2; HR&A Advisors, Inc.

D-2c: Total Economic Output Impacts of Project Net New Non-Residential Area in the Los Angeles County Economy (in 2007 dollars)

IMPLAN Industry Sector	Direct	Indirect	Induced	Total	% Total	Cum %
346 Motion picture and video industries	550,738,944	60,697,344	1,790,883	613,227,200	39.7%	39.7%
377 Advertising and related services	50,087,116	12,858,316	1,413,804	64,359,236	4.2%	43.8%
409 Amusement parks- arcades- and gambling indust	61,613,668	1,296	1,769,959	63,384,924	4.1%	47.9%
374 Management- scientific- and technical consult	46,911,896	11,782,520	1,935,396	60,629,812	3.9%	51.8%
360 Real estate establishments	0	34,337,368	18,829,780	53,167,148	3.4%	55.3%
411 Hotels and motels- including casino hotels	46,525,812	2,003,124	2,184,746	50,713,684	3.3%	58.6%
329 Retail Stores - General merchandise	42,676,732	95,492	3,604,463	46,376,688	3.0%	61.6%
361 Imputed rental activity for owner-occupied dw	0	0	46,242,300	46,242,300	3.0%	64.6%
368 Accounting- tax preparation- bookkeeping- and	33,098,112	7,621,012	2,230,367	42,949,492	2.8%	67.3%
319 Wholesale trade businesses	0	5,213,367	24,064,338	29,277,704	1.9%	69.2%
413 Food services and drinking places	0	6,611,053	19,134,620	25,745,672	1.7%	70.9%
349 Cable and other subscription programming	0	21,557,818	2,803,394	24,361,212	1.6%	72.5%
394 Offices of physicians- dentists- and other he	0	158	20,144,534	20,144,692	1.3%	73.8%
357 Insurance carriers	0	7,270,119	11,612,521	18,882,640	1.2%	75.0%
397 Private hospitals	0	186	18,216,876	18,217,062	1.2%	76.2%
354 Monetary authorities and depository credit in	0	8,710,615	9,102,437	17,813,052	1.2%	77.3%
367 Legal services	0	10,188,508	5,971,797	16,160,304	1.0%	78.4%
115 Petroleum refineries	0	3,477,886	12,020,847	15,498,733	1.0%	79.4%
381 Management of companies and enterprises	0	10,479,363	3,722,693	14,202,056	0.9%	80.3%
351 Telecommunications	0	6,989,074	6,715,197	13,704,270	0.9%	81.2%
356 Securities- commodity contracts- investments-	0	3,812,697	9,305,874	13,118,571	0.8%	82.0%
405 Independent artists- writers- and performers	0	8,835,542	246,491	9,082,033	0.6%	82.6%
380 All other miscellaneous professional- scienti	0	7,687,067	1,340,582	9,027,649	0.6%	83.2%
384 Office administrative services	0	7,466,486	1,353,517	8,820,003	0.6%	83.8%
382 Employment services	0	6,691,613	1,413,966	8,105,579	0.5%	84.3%
355 Nondepository credit intermediation and relat	0	2,921,440	4,743,948	7,665,387	0.5%	84.8%
427 US Postal Service	0	5,348,924	1,734,648	7,083,572	0.5%	85.2%
324 Retail Stores - Food and beverage	0	80,138	6,831,169	6,911,307	0.4%	85.7%
396 Medical and diagnostic labs and outpatient an	0	8,678	6,341,832	6,350,511	0.4%	86.1%
432 Other state and local government enterprises	0	1,693,593	4,280,639	5,974,231	0.4%	86.5%
388 Services to buildings and dwellings	0	4,322,220	1,565,644	5,887,863	0.4%	86.9%
320 Retail Stores - Motor vehicle and parts	0	81,459	5,728,189	5,809,648	0.4%	87.2%
348 Radio and television broadcasting	0	4,777,593	566,140	5,343,733	0.3%	87.6%
431 * Not unique commod (S&LG electricity)	0	2,732,831	2,295,431	5,028,262	0.3%	87.9%
362 Automotive equipment rental and leasing	0	3,449,314	1,550,888	5,000,202	0.3%	88.2%
414 Automotive repair and maintenance- except car	0	1,811,700	3,065,756	4,877,456	0.3%	88.6%
39 Maint & repair construct of nonresident struc	0	3,491,562	1,247,484	4,739,046	0.3%	88.9%
335 Transport by truck	0	2,363,732	2,294,339	4,658,071	0.3%	89.2%
32 Natural gas distribution	0	1,698,361	2,914,413	4,612,774	0.3%	89.5%
398 Nursing and residential care facilities	0	0	4,552,866	4,552,866	0.3%	89.8%
399 Child day care services	2,741,877	0	1,632,809	4,374,686	0.3%	90.0%
327 Retail Stores - Clothing and clothing accesso	0	38,573	4,016,732	4,055,305	0.3%	90.3%
358 Insurance agencies- brokerages- and related a	0	1,588,966	2,423,004	4,011,970	0.3%	90.6%
392 Private junior colleges- colleges- universiti	0	61,890	3,825,335	3,887,226	0.3%	90.8%
425 Civic- social- professional- and similar orga	0	1,247,260	2,623,422	3,870,682	0.3%	91.1%
359 Funds- trusts- and other financial vehicles	0	122,040	3,643,064	3,765,104	0.2%	91.3%
339 Couriers and messengers	0	2,788,191	757,953	3,546,144	0.2%	91.5%
331 Retail Nonstores - Direct and electronic sale	0	37,165	3,333,298	3,370,463	0.2%	91.8%
332 Transport by air	0	1,090,534	2,171,540	3,262,074	0.2%	92.0%
375 Environmental and other technical consulting	0	2,809,817	449,351	3,259,168	0.2%	92.2%
325 Retail Stores - Health and personal care	0	40,384	3,213,493	3,253,878	0.2%	92.4%
342 Periodical publishers	0	2,668,979	561,938	3,230,917	0.2%	92.6%
422 Other personal services	0	487,444	2,662,893	3,150,337	0.2%	92.8%
338 Scenic and sightseeing transportation and sup	0	1,791,786	1,304,006	3,095,792	0.2%	93.0%
323 Retail Stores - Building material and garden	0	31,464	2,979,439	3,010,903	0.2%	93.2%
400 Individual and family services	0	0	2,888,813	2,888,813	0.2%	93.4%
369 Architectural- engineering- and related servi	0	1,840,593	1,037,834	2,878,426	0.2%	93.6%
386 Business support services	0	2,032,463	645,338	2,677,801	0.2%	93.7%
347 Sound recording industries	0	2,014,918	533,795	2,548,713	0.2%	93.9%
330 Retail Stores - Miscellaneous	0	31,560	2,449,911	2,481,472	0.2%	94.1%
372 Computer systems design services	0	1,942,554	529,488	2,472,042	0.2%	94.2%
365 Commercial and industrial machinery and equip	0	1,957,701	448,829	2,406,529	0.2%	94.4%
341 Newspaper publishers	0	1,801,463	369,964	2,171,427	0.1%	94.5%
404 Promoters of performing arts and sports and a	0	1,712,816	452,814	2,165,630	0.1%	94.7%
321 Retail Stores - Furniture and home furnishing	0	59,762	2,004,477	2,064,239	0.1%	94.8%
257 Software- audio- and video media for reproduc	0	2,005,460	17,759	2,023,218	0.1%	94.9%
322 Retail Stores - Electronics and appliances	0	32,624	1,939,009	1,971,633	0.1%	95.1%
395 Home health care services	0	0	1,953,574	1,953,574	0.1%	95.2%
424 Grantmaking- giving- and social advocacy orga	0	229	1,932,011	1,932,239	0.1%	95.3%
326 Retail Stores - Gasoline stations	0	17,568	1,869,523	1,887,091	0.1%	95.4%
393 Other private educational services	0	65,178	1,820,448	1,885,626	0.1%	95.5%
387 Investigation and security services	0	1,429,139	397,425	1,826,564	0.1%	95.7%
350 Internet publishing and broadcasting	0	1,514,852	263,231	1,778,083	0.1%	95.8%
391 Private elementary and secondary schools	0	0	1,739,456	1,739,456	0.1%	95.9%
All Other Sectors	0	24,467,383	38,998,758	63,466,147	4.1%	100.0%
Total	**834,394,157**	**336,900,325**	**374,775,502**	**1,546,070,017**	**100.0%**	

Source: IMPLAN v.2; HR&A Advisors, Inc.

APPENDIX E

Summary of the 2008 Universal City Employee Survey

In January 2008, a cover letter and confidential questionnaire were distributed by mail to a stratified random sample of 2,500 employees working at Universal City, across all business lines operated by NBC Universal and its formal and informal affiliates. A subsequent follow-up notice was mailed to all survey recipients to urge those who had not already returned surveys to please do so. All survey cover letters (in English and Spanish) listed the names and phone numbers of contact personnel from whom respondents could receive additional information or instructions about the employee survey. The surveys were distributed in English and Spanish. As an incentive to participate, a free coffee drink certificate redeemable at the Starbuck's located at Universal City was included in the initial mailing to all employees. Questionnaires distributed to all personnel included postage-paid return envelopes for use in returning surveys directly to HR&A, which had all responsibilities for management and analysis of the returned surveys.

The final disposition of the survey sample and the 594 responses (23.8%) were as shown in Table E-1:

Table E-1
2008 Universal City Employee Survey Sample and Response Distributions

Business Unit Category	Space Type	Total	Survey Sample		Survey Responses	
Universal CityWalk	CityWalk	143	143		21	14.7%
Universal Studios CityWalk	CityWalk	10	10		1	10.0%
	Subtotal	153	153	6%	22	14.4%
Ad Sales	Office	25	8		3	17.6%
Agency	Office	28	9			
CNBC	Office	8	3		1	33.3%
Corporate	Office	35	12			
Corporate Communications	Office	7	2			
Corporate Diversity	Office	4	1			
Corporate Finance	Office	46	15		30	33.7%
Corporate Human Resources	Office	56	19			
Corporate Legal	Office	43	14			
Corporate Shared Services	Office	18	6			
Domestic Home Video	Office	35	12		5	41.7%
Domestic Theatrical Film	Office	302	101		27	26.7%
Film Headquarters	Office	86	29		6	20.7%
Focus Features	Office	60	20		6	30.0%
Information Technology	Office	321	108		34	31.5%
iVillage	Office	1	-		-	0.0%
Media Works Support	Office	79	26		11	42.3%
NBC Entertainment	Office	125	42		8	19.0%
Sci-Fi Network	Office	9	3		2	66.7%
Sleuth Network	Office	1	-		-	0.0%
Technology Growth Center	Office	19	6		2	33.3%
Telemundo Mun2	Office	26	9		-	0.0%
Telemundo Network	Office	28	9		2	22.2%
Television Distribution	Office	149	50		13	26.0%
TV Networks Distribution	Office	1	-		-	0.0%
TV Operations & Production Services	Office	6	2		-	0.0%
Universal Media Studios	Office	82	27		5	18.5%
Universal Pictures Group	Office	150	50		14	28.0%
Universal Studios Home Entertainment	Office	242	81		28	34.6%
Universal Television Distribution	Office	24	8		4	50.0%
Universal Television Production	Office	18	6		4	66.7%
USA Network	Office	12	4		3	75.0%
	Subtotal	2,046	685	27%	211	30.8%
Customer Relations & Special E	Production Facilities	1	-		-	0.0%
Facility Services	Production Facilities	330	121		20	16.5%
Operations & Administration	Production Facilities	58	21		8	38.1%
Production Services	Production Facilities	165	60		15	25.0%
Sound Services	Production Facilities	178	65		21	32.3%
Technical Operations	Production Facilities	223	81		16	19.8%
Temporary	Production Facilities	75	27		7	25.9%
Universal Studios Operations	Production Facilities	210	76		22	28.9%
	Subtotal	1,240	450	18%	108	24.0%
Universal Parks & Resorts Groups	Theme Park	2	-		-	0.0%
Universal Studios Hollywood	Theme Park	3,542	1,212		253	20.9%
	Subtotal	3,544	1,212	48%	253	20.9%
	Totals	**5,743**	**2,500**	**100%**	**594**	**23.8%**

Source: HR&A Advisors, Inc.

Data from the 594 completed questionnaires were entered into a data file by HR&A and were then analyzed using a statistical analysis software program.

Tabulations of the characteristics of the existing employees at Universal City were weighted to reflect the known distribution of employees by job type and place of employment (e.g., office facilities, production facilities, CityWalk and theme park). Based on a comparison between the general characteristics of Universal Studios Hollywood (USH) employees and those of employees at NBC Universal-owned retail establishments at CityWalk, it was determined that USH employees very closely resembled CityWalk employees, and the USH employees were then used to characterize the CityWalk employees. The number of CityWalk employees was determined through a survey of retail establishments.

The cross tabulations of the survey responses were weighted to correspond exactly to the known distribution of existing Universal City employees. The weighted responses were also determined to be consistent with other known characteristics of existing Universal City employees (including age, sex and length of employment), based on data provided to HR&A by the NBC Universal personnel office. Thus, the weighted sample is an accurate representation of employment at Universal City as of January 2008.

A different set of sample weights was used for tabulation and analysis of the employment profile of the proposed Project, because the employment distribution of the Project differs somewhat from that on the site today. The Project employment weights were estimated based on the expected distribution of Project employment by job type and place of employment (see Chapter III). Employees at the existing Universal Studios Hollywood were "weighted up" to represent those who will be employed at the Project's new entertainment and retail attractions. The characteristics of the employees at the two hotels on the site today, which represent a combination of business (Sheraton) and resort-oriented (Hilton) hotel operations, which were derives from a similar survey conducted by HR&A in 1994, were weighted to reflect their employment share in the Project. Project weights were also applied for Studio, office and retail workers to represent their relative proportions in the Project labor force.

Overall, for categorical variables (e.g., percent of employees over age 30), the survey results have a margin of error of +/- 4% at the 95% confidence interval.

NBC UNIVERSAL

100 UNIVERSAL CITY PLAZA
UNIVERSAL CITY, CA 91608

January 7, 2008

Dear Co-Worker,

As you may remember, NBC Universal announced an exciting Vision Plan for the future development of the Universal City property. As part of the planning process we are required to gather household and commuting information pertaining to Universal City employees. We have asked HR&A Advisors, Inc. (HR&A), a national research company, to gather and analyze this information.

All information submitted in this survey will be kept anonymous and strictly confidential. Surveys will be submitted directly to HR&A for processing and analysis and not reviewed by any of us here at NBCU. HR&A's report on the survey results will be presented in terms of total response statistics only, and will not contain any information pertaining to individual employees or their households.

Please fill out either the English or Spanish version of the enclosed survey and return it promptly to HR&A in the envelope provided **by January 18, 2008**.

As a token of our appreciation, we have enclosed a certificate that can be used at the Starbucks at Universal CityWalk. Thank you for your time and cooperation in completing this survey.

Sincerely,

Ken Kahrs

NBC UNIVERSAL

100 UNIVERSAL CITY PLAZA
UNIVERSAL CITY, CA 91608

7 Enero, 2008

Estimado Compañero de trabajo,

Como usted recordara, NBC Universal anuncio un exitante Plan de Vision para el future desarrollo de la propiedad de Universal City. Como parte del proceso de planificación tenemos como obligación obtener informacion sobre la vivienda y conmutación perteneciente a los empleados de Universal City. Le hemos pedido a HR&A Advisors, Inc. (HR&A), una compañia nacional de investigación, obtener y analizar esta información.

Toda la información presentada en esta encuesta se mantendra anonima y estrictamente confidencial. Encuestas seran presentadas directamente a HR&A para procesamiento y analisis y no seran revisadas por ninguno de nosostros aqui en NBCU. El reporte de HR&A sobre el resultado de la encuesta, sera presentado solo en terminos de estadística, y no contendra ninguna información perteneciente a empleados (por individual) o sus hogares.

Por favor llene ya sea la version en español o ingles de la encuesta incluida y devuelvala puntualmente a HR&A en el sobre proporcionado a mas tardar el **18 de Enero del 2008**.

En señal de nuestro agradecimiento, hemos incluido un certificado que puede ser utilizado en el Starbucks de Universal CityWalk. Gracias por su tiempo y coperación en completar esta encuesta.

Sinceramente

Ken Kahrs

Confidential NBC Universal Employee Survey

FIRST, PLEASE TELL US A LTTLE BIT ABOUT YOURSELF AND YOUR HOUSEHOLD

1. Which Universal City business unit do you work for?
(Check one)
___ CNBC
___ NBC Universal Corporate
(Corporate, EHS, Human Resources, Finance, Law, Sourcing)
___ Digital Media
___ Home Video
___ Universal Pictures
___ Telemundo/Mun2
___ Focus/Rogue
___ Information Technology
___ NBC TV/Entertainment/Studios
___ Cable Networks (SCI-FI/Bravo/USA)
___ TV Distribution
___ Studio Operations
___ Universal CityWalk
___ Universal Studios Hollywood
___ Other (Specify: _____)

2. Which of the following occupational categories best describes your employment level at Universal
(Check one)
___ Directors and above
___ Managers
___ Other Exempt
___ Non-Exempt
___ Hourly Workers

3. Do you work regular full-time or regular part-time, or are you employed on a temporary basis?
(Check one)
___ Regular Full Time (40 or more hours per week)
___ Regular Part Time (fewer than 30 hours per week)
___ Temporary Full Time
___ Temporary Part Time

4. How old are you?
___ Years

5. Are you male or female?
___ Male
___ Female

6. Counting yourself, altogether how many people live in your household?
(Include all persons, related or not, and anyone who is temporarily away, but still lives in your household.)
___ Number of people in your household

7A. Are there children under age 19 living in your household?
(Check one)
___ Yes (Go to Question 7B)
___ No (Go to Question 10)

7B. Please tell us about the ages of the children in your household
(Write in number for each category)
___ Under 6 years old
___ 6 to 14 years old
___ 15 to 18 years old

8. If you answered in Question 7B that there are children between the ages of 6 and 14 years old, do those children attend:
(Check one)
___ Public school near where you live
___ Private school near where you live
___ Public or private school near where you work
___ Other
___ Does not apply (no children age 6-14)

9. If you answered in Question 7B that there are children between the ages of 15 and 18 years old, do those children attend:
(Check one)
___ Public school near where you live
___ Private school near where you live
___ Public or Private school near where you work
___ Other
___ Does not apply (no children age 15-18)

10. Including yourself, how many people in your household are currently employed somewhere on a regular or temporary basis?
(Write in the number for each category)
___ Number with Full-Time employment
___ Number with Temporary or Part-Time employment

11. Including yourself, how many of these employed persons in your household work in Universal City?
(Write number employed in Universal City in each category.)
___ Full Time (Regular or Temporary)
___ Part Time (Regular or Temporary)

12. How long have you worked in Universal City?
(Write the number of weeks, months or years.)
___ Weeks, or
___ Months, or
___ Years

Page 1

Confidential NBC Universal Employee Survey

13. Thinking about all sources of income including wages, benefit programs, pensions and so forth received by **all** members of your household, which of the following category includes the **total income** of your household before taxes last year?
(Check one)
___ Less than $15,000
___ $15,000--$29,999
___ $30,000--$49,999
___ $50,000--$69,999
___ $70,000--$89,000
___ $90,000--$109,999
___ $110,000--$149,999
___ $150,000 or more
___ Don't Know

14. Are you the person in your household who earns the most money, the second most, or the third or other lower amount?
(Check one)
___ Primary wage earner (most)
___ Secondary wage earner (2nd most)
___ Other

NOW PLEASE TELL US ABOUT YOUR HOUSEHOLD'S COMMUTE TO WORK.

15. What is your home ZIP Code?
(write in the ZIP Code for your home address)
9_____ Home ZIP Code

15A. Write the name of the city where you live and the nearest major cross street to your home?
_____ City
_____ Nearest Major Cross Street

16. About how long does it take you to get to work at Universal City after you leave home, on an average work day, using your usual form of transportation?
(Write the number of minutes.)
___ Minutes to get to work

16A. How long does it take you to get home when you leave work from Universal City?
___ Minutes to get home from work

17. Thinking about other people in your household who have jobs, how many people spend 30 minutes or less each way to and from work and how many spend longer than 30 minutes?
(Write in the number of each category.)
___ Number with 30 minutes or less commute
___ Number with longer than 30 minutes commute
___ Not applicable (no other workers in household)

PLEASE TELL US ABOUT YOUR CURRENT HOUSING SITUATION

18. How long have you lived at your current address?
(Write the number of years or months.)
_____ Years **or**
_____ Months

19. Where did you live before this?
(Write ZIP Code **and** city name of your previous address.)
_____ ZIP Code
_____ City

20. What type of dwelling unit do you live in?
(Check one)
___ Single Family House
___ Condominium
___ Apartment Building (2 or more units)
___ Mobile Home
___ Other (Please Explain)
_____

21. Does your household own or rent its current residence?
(Check One)
___ Own (Go to Question 23)
___ Rent (Go to Question 22)
___ Other (Please Explain and then Go to Question 26)
_____
_____

22. If you live in a residence that you or your household rents, which of the following categories includes the amount your household spends each month for rent and utilities? (Check only if you live in a residence which your household **rents**. Otherwise go to question #24).
(Check one)
___ Less than $500
___ $500--$699
___ $700--$899
___ $900--$1,099
___ $1,100--$1,299
___ $1,300--$1,499
___ $1,500--$1,699
___ $1,700--$1,899
___ $1,900--$2,099
___ $2,100--$2,299
___ $2,300+
___ Don't Know

Confidential NBC Universal Employee Survey

23 If you live in a residence that you or your household owns, which of the following categories includes the amount your household spends each month for the mortgage payment(s)? (Check one only if you live in a residence your household owns.)
(Check one)

___ Less than $1,000
___ $1,000--$1,199
___ $1,200--$1,399
___ $1,400--$1,599
___ $1,600--$1,799
___ $1,800--$1,999
___ $2,000--$2,199
___ $2,200--$2,399
___ $2,400--$2,599
___ $2,600--$2,799
___ $2,800--2999
___ $3,000+
___ Don't Know

24. If your household owns its residence, about how much do you think the home would sell for if it were placed on the market for sale today? (Write in the dollar amount.)

$_____

_____ Household does not own its residence

25. How many of the people in your household who are working help pay the rent or mortgage costs? (Write in the number who help pay.)

_____Number who help pay

26. How many bedrooms are there in your current residence?

(Write in the number of bedrooms)
_____ Number of Bedrooms

FINALLY, PLEASE TELL US ABOUT YOUR FUTURE HOUSING PLANS AND PREFERENCES.

27. If you had an opportunity to do so within the next two to three years, would you move closer to your job at Universal City?
(Check one)

___ Yes, I would move to
_____
(name of city or neighborhood)
___ No (Go to Question 30)

28. Are you already planning to move closer to Universal City?
(Check one)

___ Yes (Go to Question 29)
___ No (Go to Question 30)

29. What are the three most important reasons for your planned move?
(Put "1" next to the most important reason; "2" next to the second most important reason; and "3" next to the third most important reason.)

___ Moving to better neighborhood
___ Moving to find lower housing costs
___ Moving to cut your commuting time
___ Moving to cut commuting time for others in your household
___ Moving to an area with better air quality
___ Moving to an area with better schools
___ Moving to an area with better employment opportunities
___ Moving to an area with higher quality housing
___ Other (Please specify:
_____)

30. What are the three most important reasons you now live where you do?
(Put "1"next to the most important reason; "2" next to the second most important reason; and "3" next to the third most important reason.)

___ Good neighborhood
___ Low housing costs
___ Convenient commuting for you
___ Convenient commuting for other members of your household
___ Clean air
___ Good schools
___ Good employment opportunities
___ Good quality housing
___ Other (Please specify:
_____)

THE END

ON BEHALF OF NBC UNIVERSAL, THANK YOU VERY MUCH FOR COMPLETING THIS SURVEY.

REMEMBER TO MAIL BACK YOUR COMPLETED SURVEY IN THE ENCLOSED ENVELOPE.

Appendix Q

Global Warming

Appendix Q-1

Global Warming Technical Report

Global Warming Technical Report

Prepared for

Universal City Studios LLLP, LP
Los Angeles, CA

Prepared by

CTG Energetics, Inc.
Irvine, CA

March 2010

Overview of Climate Change Documentation

A number of factors have converged over the past few years to create new requirements for the consideration of climate change and greenhouse gas (GHG) emissions in the design of projects, particularly during the preparation of environmental documentation. Key issues include:

- State goals for greenhouse gas emissions reduction articulated in California's Global Warming Solutions Act (AB 32).
- Interpretations of these new goals with respect to existing environmental policy, most notably the California Environmental Quality Act (CEQA).
- Forthcoming state-wide policy, including requirements for project-level GHG analysis (SB 97).
- Publication of the California Air Resources Board (ARB) Scoping Plan for the implementation of AB 32.
- Private legal action against individual projects, such as lawsuits by non-profit groups.

These factors, along with others, have created expectations that land-use and building projects will:

- Discuss the implications of climate change for a project, including the *contributions of the project to greenhouse gas emissions* and the *consequences of changing climatic conditions for the performance of the project*.
- Quantify and report greenhouse gas emissions.
- Develop and implement strategies that demonstrate *consistency with state goals* for greenhouse gas emissions reductions.

We provide the following information to support environmental documentation for the Project:

Section 1. An introductory discussion of the implications of climate change for the Project, including:
- Sources of greenhouse gas emissions.
- Historic context of emissions on the site.
- Review of the implications of climate change for the operation of the Project, including rising temperatures, changing precipitation patterns, and altered fire regimes.

Section 2. A quantitative greenhouse gas inventory, including three scenarios:
- Project operations with current infrastructure.
- Project operations with circumstances anticipated for 2020.
- Project operations with proposed project design features.

Section 3. Analysis of emission reductions associated with project design features, including:
- Identification of specific project performance goals.
- Analysis of alternative project design features.

Section 4. Conclusions, including:
- Cumulative impacts of the proposed Project

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Section 1. Overview of Project and Project Site

Project Overview

The Universal City Studios property (the "Project Site") comprises approximately 391 acres located two miles north of Hollywood and 10 miles northwest of downtown Los Angeles. The Project Site is located approximately 1.5 miles south and east of the junction of U.S. Route 101 (Hollywood Freeway) and State Route 134 (Ventura Freeway). The Project Site is generally bounded by the Los Angeles River Flood Control Channel to the north, the Hollywood Freeway to the south, Barham Boulevard and residences to the east, and Lankershim Boulevard and the Universal City Metro Red Line Station to the west.

The Project Site is currently located within two jurisdictions, with approximately 95 acres (24 percent) located within the City of Los Angeles (the "City") and 296 acres (76 percent) located within the unincorporated area of Los Angeles County (the "County"). The City portions are currently located within the northeastern corner of the Project Site along Barham Boulevard; the southeastern corner of the Project Site along Barham Boulevard and Coral Drive; the southwestern portion of the Project Site, adjacent to the Hollywood Freeway and along the south side of Universal Hollywood Drive as it extends towards Lankershim Boulevard; and two small slivers of land along the northern boundary. The portion of the Project Site within County jurisdiction is a contiguous area encompassing most of the northern, central, and western portions of the Project Site.

The proposed Project includes the proposed annexation of 76 acres of land from the County to the City and detachment of 32 acres of land from the City to the County. The result of the annexation would be to place all of the proposed Mixed-Use Residential Area uses within the City. Project impacts are assessed under proposed conditions (i.e., with annexation) and under current jurisdictional boundaries (i.e., no annexation).

The proposed Project would include the development of approximately 1.83 million square feet of net new studio, studio office, office, entertainment, entertainment retail, and related uses, including 500 hotel rooms and related facilities. In addition, approximately 2,937 residential dwelling units and 115,000 square feet of retail/commercial uses and up to 65,000 square feet of community serving uses (e.g., community center) would be constructed within the proposed Mixed-Use Residential Area along the eastern portion of the Project Site, effectively placing the proposed residential units in the City. To accommodate the proposed development, approximately 638,000 square feet of existing studio, office, and entertainment uses would be demolished. Table 1, below, provides a summary comparison of the net new square footage for the proposed development program in the column labeled Proposed Project (Annexation Scenario).

Table 1: Comparison of Net New Square Footage

	Proposed Project (Annexation Scenario)	No Annexation Scenario
City		
Amphitheater	-	(2,500)
Entertainment Retail	-	17,400
Entertainment	(42,240)	67,100
Office	-	24,400
Studio	48,020	77,220
Studio Office	222,552	244,430
Village Commercial	180,000	72,200
Commercial Total	408,332	500,250
Hotel	-	500
Residential	2,937	1,178
County		
Amphitheater	(50,600)	(48,100)
Entertainment Retail	39,216	21,816
Entertainment	187,895	78,555
Office	495,406	471,006
Studio	259,929	230,729
Studio Office	214,774	192,896
Village Commercial	-	107,800
Commercial Total	1,146,620	1,054,702
Hotel	500	-
Residential	-	1,759

Should the proposed annexation not occur, Table 1 also provides a summary comparison of the net new square footage for the proposed development program in the column labeled No Annexation Scenario. Similar to the Annexation Scenario, the development of approximately 1.83 million square feet of net new studio, studio office, office, entertainment, entertainment retail, and related uses, including 500 hotel rooms and related facilities, 2,937 residential units, 115,000 square feet of retail/commercial, and 65,000 square feet of community serving uses would occur; however, these uses would be positioned based on existing jurisdictional boundaries. Specifically, the residential land uses proposed for the eastern edge of the Project Site would be located on both City and County lands, while an increased mix of commercial, office, and studio office would be located within City boundaries. Also of note, the proposed 500 hotel rooms would be situated within the boundaries of the City under the No Annexation scenario. Similar to the Annexation Scenario, in order to accommodate the overall development, approximately 638,000 square feet of existing studio, office, and entertainment uses would be demolished.

Four principal Areas are currently identifiable on the Project Site: (1) the Studio Area, which consists mainly of studio offices and production facilities for movie, television and commercial production; (2)

the Entertainment Area, encompassing two discrete sub-areas: Universal Studios Hollywood, which is an admission-based entertainment venue that includes a tram tour through the existing Back Lot Area; and Universal City Walk and its related uses which are mainly entertainment retail venues, including Universal City Cinemas, Gibson Amphitheater, retail, restaurant, and other entertainment opportunities; (3) the Business Area, which encompasses the offices and related structures along the western portion of the Project Site fronting Lankershim Boulevard; and (4) the Back Lot Area, which currently provides production facilities, movie sets, and portions of the Universal Studios Hollywood entertainment venue. The proposed Project builds upon the four existing Areas and modifies portions of the existing Back Lot Area to create a new Mixed-Use Residential Area and incorporates the remaining Back Lot Area into the Studio Area.

Project Impacts – GHG Emissions

Climate change is a long-term, multi-faceted issue with global impacts caused by the accumulation of innumerable individual decisions regarding the use of energy. It has been called the world's foremost economic externality. In other words, the costs of emitting greenhouse gas (GHG) emissions currently do not account for their costs on present and future generations. In most jurisdictions, lead agencies and state regulators have articulated that climate change should be considered in California Environmental Quality Act (CEQA) documentation. However, most lead agencies have yet to provide explicit guidance on the evaluation of GHG emissions or climate change vulnerabilities.

The analysis of GHGs is significantly different from the analysis of criteria pollutants for the following reasons. For criteria pollutants, significance thresholds are based on daily emissions because determinations of attainment or non-attainment are based on daily exceedances of applicable ambient air quality standards. Further, several ambient air quality standards are based on relatively short-term exposure effects on human health, e.g., one-hour and eight-hour exposures. Since the half-life of a GHG is quite long (e.g., for CO_2, approximately 100 years), GHGs affect global climate over a relatively long time frame. As a result, the South Coast Air Quality Management District's (SCAQMD) current position is to evaluate GHG effects over a longer timeframe than a single day.

While current and future GHG emissions can be estimated, such emissions cannot be precisely correlated with specific impacts based on currently available science. No air agency, including the SCAQMD,[1] or municipality, including the City of Los Angeles, has yet established project-level significance thresholds for GHG emissions. In its January 2008 CEQA and Climate Change white paper, the California Air Pollution Control Officers Association (CAPCOA) identified a number of potential approaches for determining the significance of GHG emissions in CEQA documents. In this white paper, CAPCOA suggests making significance determinations on a case-by-case basis when no significance thresholds have been adopted. The Governor's Office of Planning and Research (OPR), in its June 19, 2008 Technical Advisory, recognizes that CEQA Guidelines have not been adopted to provide guidance as to how climate change is to be addressed under CEQA. OPR also notes that it is continuing to consult with ARB technical staff regarding appropriate thresholds of significance to use for climate change analysis, but that such guidance is not yet available. OPR has provided the following "informal guidance" regarding the steps for addressing climate change impacts under CEQA:

[1] The SCAQMD has formed a GHG Significance Threshold Working Group. More information on this Working Group is available at http://www.aqmd.gov/ceqa/handbook/GHG/GHG.html (last visited 5/5/2008).

(1) Identify and quantify the GHG emissions;

(2) Assess the significance of the impact on climate change; and

(3) If significant, identify alternatives and/or mitigation measures that will reduce impacts below significance.[2]

On April 13, 2009, OPR transmitted proposed CEQA Guidelines Amendments to the Natural Resources Agency for a formal rulemaking process to certify and adopt said amendments. Notably, the proposed amendments do not establish a threshold of significance. The proposed guidelines also clarify "that the effects of greenhouse gas emissions are cumulative, and should be analyzed in the context of CEQA's requirements for cumulative impact analysis."[3]

For all these reasons, in the absence of regulatory guidance, and before the resolution of various legal challenges related to global climate change analysis and the selection of significance thresholds, a significance determination will be made on a case-by-case basis.

In addition, the regulations required to meet the goals under AB 32 are still under development, but are expected to be implemented no later than January 1, 2012.[4] At this time, there are no universally accepted standards by which the approval of a real estate development project can be judged to support or hinder attainment of the State's goals relating to GHG abatement.

Impact of Changing Climatic Conditions

This report assesses the relationship between the Project and GHG emissions, the primary drivers of anthropogenic climate change, and the focus of California's climate change policy. It is important to recognize that the climatic conditions experienced by the Project over its designed lifetime are likely to be substantially different from those observed over the past century. Consequently, it is useful to consider the implications of changing climatic conditions for Project performance. Scenarios[5] for 2100 modeled in the Intergovernmental Panel on Climate Change (IPCC) Fourth Assessment Report (FAR) include:

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[2] OPR Technical Advisory, p. 5.

[3] Letter from Cynthia Bryant, Director of OPR, to Mike Chrisman, Secretary for Natural Resources (April 13, 2009) at 4.

[4] ARB's list of discrete early action measures that can be adopted and implemented before January 1, 2010, was approved on June 21, 2007. The three adopted discrete early action measures are: (1) a low-carbon fuel standard, which reduces carbon intensity in fuels state-wide; (2) reduction of refrigerant losses from motor vehicle air conditioning system maintenance; and (3) increased methane capture from landfills, which includes requiring the use of state-of-the-art capture technologies.

[5] Future GHG emissions are the product of very complex dynamic systems, determined by driving forces such as demographic development, socio-economic development, and technological change. Their future evolution is highly uncertain. Scenarios are alternative images of how the future might unfold and are an appropriate tool with which to analyze how driving forces may influence future emission outcomes and to assess the associated uncertainties. They assist in climate change analysis, including climate modeling and the assessment of impacts, adaptation, and mitigation. The possibility that any single emissions path will occur as described in scenarios is highly uncertain. More information on the IPCC's selection of scenarios is available at http://www.ipcc.ch/ipccreports/sres/emission/index.htm.

Temperature Increase

- Low Emissions Scenario: 1.8°C (best estimate), with a range of 1.1°C to 2.9°C
- High Emissions Scenario: 4.0°C (best estimate), with a range of 2.4°C to 6.4°C

Sea Level Rise

- Low Emissions Scenario: 0.18 to 0.38 meters (range)
- High Emissions Scenario: 0.26 to 0.59 meters (range)

Potential implications for the Project include:

Sea level: Rising sea levels are unlikely to directly impact the proposed Project due to its distance from the coast and relative elevation.

Temperature: Rising temperatures could have a variety of impacts, including stress on sensitive populations (e.g., sick and elderly), additional burden on building systems (e.g., demand for conditioning), and, indirectly, increasing emissions of greenhouse gases and criteria pollutants associated with energy generation. It is not possible to reliably quantify these risks at this time.

Precipitation: Climate change is expected to alter seasonal and inter-annual patterns of precipitation. These changes continue to be one of the most uncertain aspects of future scenarios. For this Project, the most relevant direct impacts are likely to be changes in the timing and volume of stormwater runoff and changes in demand for irrigation. It is not possible to reliably quantify the implications of these changes at this time.

Wildfire: Changes in temperature and precipitation may combine to alter risks of wildfire. Changes in wildfire hazard have the potential to impact the Project; however, it is not possible to reliably quantify the implications of these changes at this time.

Water supply reliability: Changes in temperature and precipitation may also influence seasonal and inter-annual availability of water supplies. Consequently, it is reasonable to consider that climate change may affect water supply reliability. It is not possible to reliably quantify these risks for the Project at this time. For more information on the Project's water supply, please refer to the Water Supply Assessment in the EIR.

Scope of GHG Emissions Inventory

Although no numerical thresholds of significance have been developed, the California Climate Action Registry (CCAR) General Reporting Protocol (GRP) provides a number of basic procedures and guidelines for calculating and reporting GHG emissions from a number of general and industry-specific activities.[6] The CCAR GRP is based on the "Greenhouse Gas Protocol: A Corporate Accounting and Reporting Standard" developed by the World Business Council for Sustainable Development (WBCSD) and the World Resources Institute (WRI) through "a multi-stakeholder effort

[6] California Climate Action Registry, General Reporting Protocol Version 3.1, January 2009. Source: http://www.climateregistry.org/resources/docs/protocols/grp/GRP_3.1_January2009.pdf.

to develop a standardized approach to the voluntary reporting of GHG emissions."[7] No specific protocols are available for land use projects, so the CCAR GRP has been adapted to address GHG emissions from the Project. The information provided in this section is consistent the CCAR GRP's minimum reporting requirements.

The CCAR GRP recommends the separation of GHG emissions into three categories that reflect different aspects of ownership or control over emissions. They include:

Scope 1:	Direct, on-site combustion of fossil fuels (e.g., natural gas, propane, gasoline, and diesel).
Scope 2:	Indirect, off-site emissions associated with purchased electricity or purchased steam.
Scope 3:	Indirect emissions associated with other emissions sources, such as third-party vehicles and the embodied energy.[8]

The CCAR GRP provides a range of basic calculation methods; however, CCAR GRP calculations are typically designed for existing buildings or facilities. These retrospective calculation methods are not directly applicable to planning and development situations where buildings do not yet exist.

ARB believes that consideration of so-called indirect emissions provides a more complete picture of the GHG footprint of a facility: *"As facilities consider changes that would affect their emissions – addition of a cogeneration unit to boost overall efficiency even as it increases direct emissions, for example – the relative impact on total (direct plus indirect) emissions by the facility should be monitored. Annually reported indirect energy usage also aids the conservation awareness of the facility and provides information"* to ARB to be considered for future strategies by the industrial sector.[9] For these reasons, ARB has proposed requiring the calculation of direct and indirect GHG emissions as part of the AB 32 reporting requirements.

ARB's requirements are supported by interpretations of settlements between local jurisdictions and the California Attorney General. For example, the County of San Bernardino is preparing a comprehensive GHG inventory that includes "…all direct (all stationary, area, and mobile source emissions) and indirect (emissions resulting from the use of electricity, pumping and treatment of water and wastewater, and the transport and disposal of solid waste) sources of GHG emissions…"[10]

Additionally, OPR has recommended that lead agencies "*make a good-faith effort, based on available information, to calculate, model, or estimate…GHG emissions from a project, including the*

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[7] California Climate Action Registry General Reporting Protocol, Version 3.1, (January 2009). Source: http://www.climateregistry.org/resources/docs/protocols/grp/GRP_3.1_January2009.pdf.

[8] Embodied energy refers to the quantity of energy required to manufacture, and supply to the point of use, a product, material, or service. Source: http://en.wikipedia.org/wiki/Embodied_energy

[9] California Air Resources Board (ARB), 2007a. Initial Statement of Reasons for Rulemaking, Proposed Regulation for Mandatory Reporting of Greenhouse Gas Emissions Pursuant to the California Global Warming Solutions Act of 2006 (Assembly Bill 32). Planning and Technical Support Division Emission Inventory Branch, October 19, 2007.

[10] Request for Countywide GHG Emissions Reduction Plan. County of San Bernardino, June 13, 2008.

emissions associated with vehicular traffic, energy consumption, water usage and construction activities."[11] Therefore, direct and indirect emissions have been calculated for the proposed Project.

A fundamental difficulty in analysis of GHG emissions is the global nature of the existing and cumulative future conditions. Changes in GHG emissions can be difficult to attribute to a particular planning program or project because the planning effort or project may cause a shift in the locale for some type of GHG emissions, rather than causing "new" GHG missions. Whether this represents a net global increase, reduction, or no change depends on the GHGs that would exist if the project were not implemented.

Sources of GHG Emissions

As indicated in the Climate Change Scoping Plan adopted by the California Air Resources Board in December 2008 ("Adopted Scoping Plan" or "Scoping Plan"),[12] buildings and land use are major contributors to California's GHG emissions. The existing Project Site and the proposed Project are associated with direct and indirect GHG emissions that cut across different types of industries and emissions sources, including:

- *Building operations:* emissions associated with space heating and cooling, water heating, and lighting
- *Theme park operations:* emissions associated with the operation of rides and other attractions
- *Studio Productions:* emissions associated with the studio production operations
- *Transportation:* emissions associated with residential, service and commercial vehicles, and transit
- *Construction:* emissions associated with site preparation, excavation, grading, and construction-related vehicular activity (construction-related solid waste removal)
- *Water:* emissions associated with energy used to pump, convey, treat, deliver, and re-treat water (embodied energy of water)
- *Solid waste:* emissions associated with residential and commercial waste streams (embodied energy of materials)
- *Materials:* emissions associated with the production and distribution of materials (embodied energy of materials)
- *Land cover conversion:* emissions associated with changes in carbon sequestration associated with the conversation of pre-development land cover to post-development land cover

Conventional GHG emissions accounting protocols spread the ownership and control of emissions across many actors (e.g., land owners, vehicle owners, construction contractors, utilities, etc.). However, as suggested by the Adopted Scoping Plan, this analysis recognizes that buildings and

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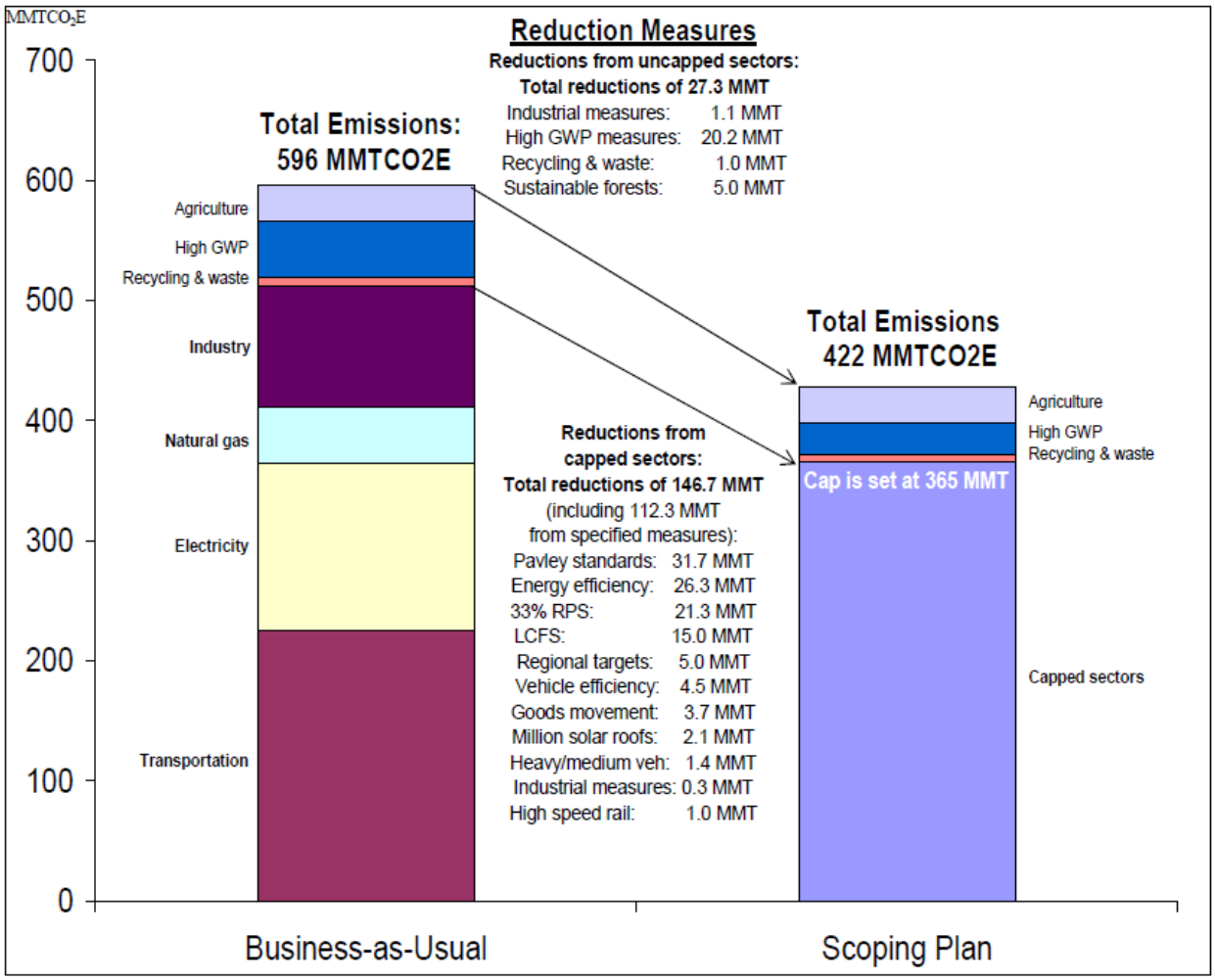
[11] OPR Technical Advisory, p. 5.

[12] Available at http://www.arb.ca.gov/cc/scopingplan/document/scopingplandocument.htm (last visited 5/12/2009).

land-use represent a nexus that brings these factors together and offer opportunities to reduce emissions through changes in transportation, land use, building design, construction, and operations. This technical report also utilizes the Scoping Plan's approach to establishing a "business-as-usual" (BAU) level of emissions, using it as the basis for estimating project-related emissions at build out. The difference between BAU and "as proposed" emissions represents a combination of project design features (e.g., energy efficiency) and state actions (e.g., adoption of the Renewable Portfolio Standard and Low Carbon Fuel Standard).

Figure 1 below illustrates the Scoping Plan's approach to establishing a "business-as-usual" (represented in the left hand column) and how the recommended emission reduction measures listed in the center favorably position California towards achieving the 2020 goal (right hand column).

Figure 1. California Greenhouse Gas Emissions in 2020 and Recommended Reduction Measures[13]



[13] Available at http://www.arb.ca.gov/cc/scopingplan/document/scopingplandocument.htm (last visited 5/12/2009).

Section 2. Baseline Greenhouse Gas Inventory

The following items reflect the minimum reporting elements required by the California Climate Action Registry under the General Reporting Protocol (version 3).

Inventory Preparation

This inventory was prepared by

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(949) 790-0010

Inventory Organizational Information

NBC-Universal
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Universal City, CA 91608

Inventory Protocol

The inventory was conducted by adapting guidance in the California Climate Action Registry General Reporting Protocol (version 3)[14] to project circumstances.

Inventory Scope

This inventory reflects greenhouse gas emissions associated with the Project as described in the current master plan and technical reports associated with the project Environmental Impact Report. The inventory includes Scope 1, Scope 2, and selected Scope 3 emissions.

Overview of Greenhouse Gas Emissions Calculations

This report provides three sets of greenhouse gas emissions estimates: (1) baseline; (2) BAU; and (3) as proposed. The following tables provide results for the baseline inventory and calculation methods are provided in the following sub-sections. Results for the "as proposed" case are presented in Section 3. The BAU inventory provides a measure of "business-as-usual" emissions for a similar

[14] The Climate Action Registry General Reporting Protocol (GRP) provides guidance on calculating, reporting, and certifying an emissions inventory (see www.climateregistry.org/protocols/).

project that lacks emissions reducing project design features. The "as proposed" case evaluates relative emissions reductions associated with project design features.

The term "Scope" in the following tables reflects the definitions in the California Climate Action Registry General Reporting Protocol. *Scope 1* emissions result from on-site combustion of fuels, including natural gas, diesel, and gasoline. *Scope 2* emissions result from the purchase of electricity and occur off-site in response to Project demand. *Scope 3* emissions result from third-party activity associated with the Project, including embodied energy of water and, most importantly, transportation. Construction emissions are episodic Scope 3 emissions. They include on-site emissions from construction equipment, embodied energy, and emissions associated with construction waste removal. They are presented in the report annualized for a 30 year period (i.e., total construction emissions divided by 30 years).

GHG Emissions Baseline

The CEQA Guidelines specify that the physical environmental conditions at the time the notice of preparation (NOP) is published "will normally constitute the baseline physical conditions by which a lead agency determines whether an impact is significant." CEQA Guidelines § 15125(a). This report takes a conservative approach and uses the physical environmental conditions at the time of Publication of the Project's NOP as the CEQA baseline.

Table 2 summarizes existing, baseline GHG emissions by Scope as defined by the CCAR GRP. (All emissions in metric tCO_2e).

	Existing Emissions	**%**
Scope 1: Direct combustion	19,308	15%
Scope 2: Purchased electricity	37,427	30%
Scope 3: Transportation, Solid Waste Removal, Water	69,228	55%
TOTAL	**125,964**	100%

Consistency with AB 32 ("Business-As-Usual")

As discussed above, there currently are no adopted significance thresholds for GHG emissions. Based on the currently available guidance, this report assesses whether the Project's GHG impacts are significant based on the Project's consistency with California's goals to reduce GHG emissions under AB 32. A particularly illustrative method to determine consistency with AB 32, and one that has the co-benefit of being based on quantification of emissions, is to compare a project's emissions as proposed to that project's emissions if it were to be built utilizing "business-as-usual" (BAU) design, methodology, and technology.

If a project constitutes an equivalent or larger break from BAU than has been determined by ARB to be necessary to meet AB 32's goals, then that project can be considered consistent with AB 32 and, therefore, will not have a significant impact on the environment due to its GHG emissions. The Scoping Plan is based on a state-wide goal of reducing absolute GHG emissions 15% below current

conditions (measured against emissions for the period 2002-2005). Based on state-wide growth projections, achieving AB 32's goals may require approximately a 28.4% "break from business-as-usual". The level of reduction required for any given local or sector may vary. This report utilizes this 'break from BAU' method to present relative emissions reductions and to evaluate consistency with AB 32.

It is important to note that the notion of state-wide BAU used in the ARB Adopted Scoping Plan is not directly applicable at local or regional scales. The state-wide BAU is based on historic trends across entire economic sectors – not the activity of local governments or individual projects (i.e., it is a top-down estimate of anticipated future emissions). Consequently, evaluating the proposition that a project constitutes a break from BAU requires providing a quantitative estimate of BAU based on the specific circumstances of the proposed project in the context of relevant State activities and mandates. This essentially requires two complementary GHG emissions inventories:

- "Business-As-Usual" project GHG emissions without state actions and mandates
- "As proposed" project GHG emissions by 2030 with project design features and state actions and mandates expected to be in force in 2020

The following sections describe the assumptions used in the two scenarios above. The following analysis includes potential emissions under BAU scenarios and from the Project at build-out based on actions and mandates expected to be in force in 2020. Note that the Project is not anticipated to reach build out until 2030; however, policies and programs mandated beyond 2020 are unknown or uncertain. Consequently, the emissions estimates contained herein reflect the Project at build-out (2030) and the best possible current estimate of mandated conditions based on requirements through 2020. In other words, this technical report does not terminate its analysis of the Project at 2020; rather, it quantifies expected emissions as of build out in approximately 2030 based only on those emissions reduction mandates which are specified through 2020. Given the state's aggressive goals for 2050, it is likely that emissions reductions strategies for 2020 will need to continue and intensify through 2030. However, since specific requirements are not defined for this period, this technical report takes a conservative approach by assuming full implementation of practices required for 2020, but no additional measures for the period 2020 to approximately 2030. Consequently, this technical report takes a conservative approach that likely overestimates the Project's GHG emissions at the approximate 2030 build out.

Business-As-Usual without State Actions or Mandates

Existing land uses on the Project Site emitting GHGs include an amphitheater, entertainment retail, entertainment, office, studio, studio office, and commercial within the Business, Entertainment, and Studio Areas. The existing uses which generate GHG emissions in the existing Back Lot Area are negligible, including building facades, an existing child care center, a transportation fuel area, production facilities, and portions of the Universal Studio tour.

Business, Entertainment and Studio Areas BAU

The Business, Entertainment and Studio Areas are a unique mixture of buildings and land uses. The Business, Entertainment and Studio Areas contain a combination of offices, studio, and entertainment uses. These land uses include a variety of processes, including rides, movie sets, and

other apparatus. Today's combination of land use, buildings, and infrastructure is a product of growth across a substantial period of time, much of it predating energy codes. Many buildings were constructed before the introduction of state-wide energy codes in 1978, although they have been subject to periodic renovation and retrofits since that time.

Understanding energy use in the Business, Entertainment, and Studio Areas requires parsing energy consumption between buildings and a myriad of unusual process loads, including movie production activities and theme park operations. Analysis of historic energy use suggests that approximately 48% of energy use in the Business, Entertainment and Studio Areas is associated with buildings, while 52% is associated with process loads that are not subject to building-related energy codes.

The distinction between regulated and non-regulated (process) loads is important to projecting future emissions and establishing business-as-usual conditions. Building-related, regulated loads are presumed to meet or exceed current energy code standards. Consequently, these new loads grow more slowly than the overall expansion of the project (i.e., each new unit of growth is associated with a lower level of energy consumption and emissions than existing uses). Non-building-related (process) loads are not subject to energy code requirements, and they are assumed to grow in proportion to the growth of the Project (e.g., a 33% increase in square footage results in a 33% increase in process-related energy consumption).

In addition, the Project will demolish a number of older, relatively energy inefficient buildings and construct new buildings which will be required to meet current energy codes. This replacement complicates the development of an energy and emissions BAU scenario. The following analysis establishes BAU for the Business, Entertainment, and Studio Areas as energy and emissions associated with continued use of remaining existing buildings and construction of new buildings to minimum performance level required under Title-24 (2005). When considered against this BAU scenario, the Project's demolition of older buildings contributes to a relative reduction in energy use and emissions since new, code-compliant buildings will replace older, pre-energy code buildings.

Mixed-Use Residential Area BAU

The existing condition of the eastern portion of the Project Site, commonly referred to as the Back Lot Area, currently consists of child care services, a transportation area, temporary outdoor movie sets, production facilities, man-made lakes, and portions of the Universal Studios Hollywood entertainment venue. The Project proposes to replace these structures with a mixed-use development of 2,937 residential dwelling units, 115,000 square feet of retail/commercial uses and 65,000 square feet of community serving facilities within the proposed Mixed-Use Residential Area. The circumstances associated with the Mixed-Use Residential Area are similar to those associated with many large residential developments. There are a range of potentially relevant BAU estimates. One of the most commonly used is typical standards of new construction combined with minimal compliance with Title-24 (2005) energy code. Typical patterns include both the mixture of residential products and the performance of individual buildings, including:

- Minimum compliance with Title-24 (2005) energy code
- Average household water consumption
- Landscaping water use equivalent to irrigated turf grass
- Average rates of solid waste recycling for the region (approximately 49% diversion)

- Mixture of residential product types specified above

Business-As-Usual with State Actions and Mandates for 2020

BAU scenarios described above provide a basis for evaluating the performance of a project. It is useful to consider the performance of the "business-as-usual" project and the "as proposed" Project with respect to both current and anticipated future regulatory conditions. Consideration of the proposed Project's performance under current regulatory conditions provides a conservative *upper-bound* on Project emissions, as future regulatory action is expected to result in a range of infrastructure changes that will reduce emissions over time. Consideration of the proposed Project's performance under regulatory conditions anticipated for 2020 provides a more realistic measure of actual emissions associated with the Project in operation. Assuming full implementation of current state mandates by 2020 provides a relative *lower-bound* on the proposed Project's emissions, notwithstanding project design features that will further lower the proposed Project's emissions. Estimates for Project performance with 2020 regulation are designed to be used in conjunction with estimates based on current conditions to bracket a plausible range of actual performance given changing circumstances. California and the Federal government have established a number of mandates that will help reduce GHG emissions from the Project and State overall by 2020. Three of the most important quantifiable factors include California's state-wide Renewables Portfolio Standard (RPS), California's Low Carbon Fuel Standard (LCFS), and California Assembly Bill 1493 (AB 1493) - Pavley Standards.

California Renewables Portfolio Standard

The ARB Adopted Scoping Plan makes it clear that implementation of the Renewables Portfolio Standard (RPS) is a foundational element of the State's emissions reduction plan. In 2002, Senate Bill 1078 established the California RPS program, requiring 20% renewable energy by 2017. In 2006, Senate Bill 107 advanced the 20% deadline to 2010, a goal which was expanded to 33% by 2020 in the 2005 Energy Action Plan II and Executive Order S-21-09.[15] These mandates apply directly to investor-owned utilities, in this case Southern California Edison (SCE). However, publicly-owned utilities have agreed to voluntary meet the 20% goal, including the Los Angeles Department of Water and Power (LADWP). LADWP has launched an aggressive initiative to integrate more renewable energy in their power supply, thereby reducing their dependence on coal. In 2005, LADWP renewable energy comprised approximately 3 percent of the power supply. According to LADWP's 2008 Power Source Disclosure, 8% of the power supply for calendar year 2008 was sourced from renewable energy and the utility is on track to reach 20 percent by 2010, with a goal of 35% by 2020.[16][17] Consequently, the scenario with 2020 State mandates considered in this analysis assumes that both utilities will reduce the carbon intensity of delivered electricity equivalent to meeting the 20% RPS goal by 2020. A variety of goals and targets call for higher levels of performance, but these are difficult to quantify and, in most cases, non-binding on SCE and LADWP at this time; therefore, they were not included in the scenario with 2020 mandates in this analysis.

[15] S-21-09 Executive Order by Governor Arnold Schwarzenegger (source: http://gov.ca.gov/executive-order/13269)

[16] LADWP 2008 Green Annual Report (source: http://www.ladwp.com/ladwp/cms/ladwp005198.jsp)

[17] LADWP Renewable Energy Policy (source: http://www.ladwp.com/ladwp/cms/ladwp005864.jsp)

California Assembly Bill 1493 – Pavley Standards

On July 22, 2002, Governor Gray Davis signed Assembly Bill 1493 requiring the California Air Resources Board to develop and adopt regulations designed to reduce greenhouse gases emitted by passenger vehicles and light-duty trucks beginning with the 2009 model year.[18] The standards set within the Pavley regulations are expected to reduce GHG emissions from California passenger vehicles by about 22 percent in 2012 and about 30 percent in 2016[19]. California had petitioned the USEPA in December 2005 to allow these more stringent standards and California executive agencies have repeated their commitment to higher mileage standards. On July 1, 2009, the USEPA granted California a waiver which will enable the state to enforce stricter tailpipe emissions on new motor vehicles. Proposed amendments are currently being discussed in order to achieve the originally approved regulations and goals on a more condensed timeline. Although proposed amendments have not gone through final approval process the Project has taken credit for the anticipated reduction in greenhouse gas emissions that will result from full implementation of these stricter standards given the proposed Project's build out timeline. In addition, on May 19, 2009, President Barack Obama announced a new National Fuel Efficiency Policy aimed at increasing fuel economy and reducing greenhouse gas pollution.[20] The new standards are expected to increase fuel economy by more than 5% by requiring a fleet-wide average of 35.5 mpg by 2016 starting with model years 2012.[21] However, Federal fuel economy standards have not yet been promulgated establishing specific benchmarks; therefore, the proposed Project does not take credit for any related reductions in greenhouse gas emissions. Consequently, this analysis utilizes a realistic and conservative assumption and incorporates Pavley standards to estimate California fleet fuel economy in 2020.

California Low Carbon Fuel Standard

On January 18, 2007, Governor Arnold Schwarzenegger issued Executive Order S-1-07 requiring the establishment of a Low Carbon Fuel Standard (LCFS) for transportation fuels. This statewide goal requires that California's transportation fuels reduce their carbon intensity by at least 10 percent by 2020.[22] Regulatory proceedings and implementation of the LCFS have been directed to the California ARB. The LCFS has been identified by the ARB as a discrete early action item in the Adopted Scoping Plan. ARB expects the LCFS to achieve the minimum 10 percent reduction goal; however, many of the early action items outlined in the Scoping Plan work in tandem with one another. To avoid the potential for double-counting emission reductions associated with AB 1493 (Pavley), the Scoping Plan has modified the aggregate reduction expected from the LCFS to 9.1 percent.[23] In accordance with the Scoping Plan, this analysis incorporates the modified reduction potential for the LCFS.

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[18] California Climate Change Portal, Assembly Bill 1493 Chaptered (source http://www.climatechange.ca.gov/publications/legislation/ab_1493_bill_20020722_chaptered.pdf)

[19] California Air Resources Board comparison between Pavley AB 1493 and the Federal 2007 CAFE standards (source http://www.arb.ca.gov/cc/ccms/ab1493_v_cafe_study.pdf)

[20] The White House, Office of the Press Secretary (source: http://www.whitehouse.gov/the_press_office/President-Obama-Announces-National-Fuel-Efficiency-Policy/

[21] California Air Resources Board comparison between Pavley AB 1493 and the Federal 2007 CAFE standards (source http://www.arb.ca.gov/cc/ccms/ab1493_v_cafe_study.pdf)

[22] California Low Carbon Fuel Standard (source http://www.arb.ca.gov/fuels/lcfs/lcfs.htm) (last visited 6/8/2009).

[23] Available at http://www.arb.ca.gov/cc/scopingplan/document/scopingplandocument.htm (last visited 5/12/2009).

Annual BAU Project Emissions

Table 3 summarizes Business-as-Usual (BAU) Project GHG emissions by Scope as defined by the California Climate Action Registry General Reporting Protocol. Although construction emissions are an episodic, Scope 3 source, total construction emissions have been annualized in this table over a performance period of 30 years (e.g., total emissions divided by 30 years) to maintain consistency as the other emissions in the table are also reported annually. Percentages indicate the fraction of emissions associated with each category of emissions.

Table 3: Annual BAU Project Emissions by Scope (All Emissions Net New metric tCO_2e)

	BAU Emissions	**%**
Scope 1: Direct combustion	13,865	14.7%
Scope 2: Purchased electricity	41,772	44.4%
Scope 3: Transportation, water, solid waste	32,413	34.5%
Scope 3: Construction	6,012	6.4%
TOTAL	**94,063**	**100.0%**

The performance of the "as proposed" Project (described in more detail in the following sections) was considered under both existing and conditions anticipated at project build out.

As described above, existing conditions reflect the current generation of electricity and the current characteristics of California's vehicle fleet. The conditions projected for build out reflect full implementation of the 20% RPS standard for both LADWP and SCE, the implementation of the California AB 1493 - Pavley Standards, and California's Low Carbon Fuel Standard. These assumptions are conservative since there are a number of additional targets and goals including the potential for an increase in RPS of up to 33% by 2020.

Quantifying GHG Emissions

Project emissions have been quantified using the CTG Sustainable Communities Model (SCM)® methodology, which has been recognized by the California Attorney General as a technical resource and tool for estimating greenhouse gas emissions.[24] Greenhouse gas emissions were estimated separately for the following categories of land use or energy end-use:

1. Building operations
2. Infrastructure
3. Water use
4. Solid waste
5. Transportation

[24] California Office of Planning and Research. 2008. Technical Advisory: CEQA and Climate Change: Addressing Climate Change Through California Environmental Quality Act (CEQA). http://www.opr.ca.gov/ceqa/pdfs/june08-ceqa.pdf

6. Construction

The following sections describe analytical approaches used to estimate emissions under baseline and "as proposed" conditions.

1. Building Operations

The Business, Entertainment and Studio Areas are a unique combination of land uses, including office buildings, studio operations, theme park, and CityWalk (entertainment, restaurant, and retail) uses. Based on how natural gas and electricity are metered in these Areas, it is difficult to isolate existing energy use for individual land uses. For example, offices and studio activities are likely to have significantly different energy use characteristics; however, both types of land uses are recorded on a single electricity meter. Similarly, GHG emissions from the theme park are a complex mixture of direct combustion of liquid fuels and electricity.

Direct combustion GHG emissions (Scope 1) are associated with a variety of liquid fuels, including diesel, gasoline, propane, and natural gas. These fuels are used to power trams, amusements, and various studio operations. These emissions sources are described in detail in the NBC Universal Evolution Plan Air Quality Technical Report and the information contained therein is used as the starting point for the analysis presented here.

Scope 2 emissions are associated with purchased electricity. During the 2006 and 2007 time period, electricity was supplied to the Business, Entertainment, and Studio Areas by both LA Department of Water and Power (LADWP) (3%) and Southern California Edison (SCE) (97%). The balance of electricity supply between these utilities has important implications for GHG emissions. The current emissions factor of LADWP electricity is approximately 0.56 metric tonnes of CO_2 equivalent (CO_2e) per megawatt hour (MW/hr). SCE electricity emits approximately 0.29 metric tonnes of CO_2e per MW/hr. This difference reflects contrasting mixtures of energy sources available to each utility. The implication is that each kilowatt hour of electricity purchased from LADWP is associated with approximately twice as much CO_2e as a kilowatt purchased from SCE.

The proposed Project calls for a net expansion of square footage by 33% within the Business, Entertainment, and Studio Areas. A BAU scenario includes two key assumptions: new buildings will meet minimum Title-24 (2005) energy code requirements; and non-building-related energy use will increase in proportion to the size of the expansion (i.e., a 33% increase in square footage will result in a 33% increase in energy use and associated emissions). Under the proposed Project scenario some older-buildings are replaced by buildings that meet or exceed Title-24 (2005), new buildings meet or exceed Title-24 (2005), and non-building-related energy use will continue to increase in proportion to the size of the expansion.

Overview of building GHG emissions calculations

Building-related emissions are estimated based on two primary components:

1. *Energy use intensities* for new and existing structures (e.g., therms and kilowatts of natural gas per square foot); and

2. *Emissions intensities* per unit energy supplied (e.g., emissions per therm of natural gas or kilowatt hour of purchased electricity).

Total energy use was estimated for the proposed project and combined with information about the emissions intensity of energy supplies anticipated for project build out. Project design features and state actions reduce emissions by reducing energy use intensities (e.g., energy use per square foot) and reducing the emissions intensity of supplied energy (e.g., use of renewable, green power).

Hotel

The proposed Project calls for 500 hotel rooms and related facilities. The Database for Energy Efficient Resources (DEER)[25] was used to estimate energy consumption for a typical California hotel in a similar climate zone. The DEER database indicates that the median California hotel uses 10.8 kwhr/sf/year and 0.5 therms/sf/year of electricity and natural gas respectively. Electricity used by the Hotel was assumed to be supplied by SCE and generates Scope 2 emissions based on SCE's current and anticipated 2020 carbon intensity per delivered MW/hr.

Mixed-Use Residential Area

Energy use for building types was estimated using a combination of energy simulation models, including eQUEST and Energy-10.[26] These models were used to simulate code-compliant buildings for the distribution of land uses indicated for the Mixed-Use Residential Area. The models were then used to develop alternative packages of features capable of reducing energy consumption and associated GHG emissions. The simulation models provided annual energy use intensity estimates for purchased electricity and natural gas for different dwelling unit types and configurations. Based on the proposed Project annexation of the County portions of the Mixed-Use Residential Area into the City, electricity usage in the Mixed-Use Residential Area was assumed to be supplied by LADWP. Resulting Scope 2 emissions generated are based on LADWP's current and anticipated 2020 carbon intensity per delivered MW/hr.

2. Infrastructure

Parking structures

Energy use was estimated for two types of parking structures: (1) surface parking and above ground parking decks, and (2) below ground parking garages. These types vary significantly in energy consumption because of the need to mechanically ventilate below ground structures (i.e., fans). Energy consumption was estimated based on proposed subterranean garages in the Mixed-Use Residential Area with baseline energy intensities estimated by the project architect.

Public lighting

External public lighting loads were estimated based on the extent of paths and roadways indicated for the Mixed-Use Residential Area in the Project Conceptual Plan. The intensity and energy

[25] The Database for Energy Efficient Resources (DEER) is a California Energy Commission and California Public Utilities Commission (CPUC) sponsored database designed to provide well-documented estimates of energy and peak demand savings values, measure costs, and effective useful life (EUL) all with one data source.

[26] eQUEST and Energy-10 are energy modeling applications verified by the US Department of Energy as credible hourly building energy simulation programs. Residential building energy consumption was estimated using these models based on proposed building types for the Project.

consumption were based on estimates for available technology and engineering judgment about the intensity of energy use for other projects in the region.

Pools and spas

Energy requirements for heating water for outdoor pools and spas were based on engineering calculations from similar projects in the region and estimates, assuming approximately 12 pools and spas in the Mixed-Use Residential Area.

Overview of infrastructure GHG emissions calculations

Infrastructure-related emissions are estimated based on two primary components:

1. *Energy use intensities* for new and existing infrastructure (e.g., kilowatts per hour of lighting operation); and

2. *Emissions intensities* per unit energy supplied (e.g., emissions per therm of natural gas or kilowatt hour of purchased electricity).

Total energy use was estimated for the proposed project and combined with information about the emissions intensity of energy supplies anticipated for project build out. Project design features and state actions reduce emissions by reducing energy use intensities (e.g., lighting power density) and reducing the emissions intensity of supplied energy (e.g., use of renewable, green power).

3. Water

The treatment and conveyance of water is a major source of electricity consumption in California. The California Energy Commission (CEC) has issued a number of recent reports quantifying the embodied energy and GHGs associated with potable water. CEC indicates that each gallon of delivered potable water in Southern California is associated with 0.0085 kWhr of electricity. The electricity used to supply water was assumed to reflect the state-wide average for carbon intensity as reflected in the California Climate Action Registry General Reporting Protocol (version 3.1). This emissions factor is somewhat lower than that of LADWP and somewhat higher than SCE.

GHG emissions associated with water include annual, operational water consumption and episodic water use for fugitive dust control during construction. GHG emissions associated with the annual consumption of water were classified as Scope 3 under the CCAR GRP and are reported separate from construction-related water use in this analysis. Total water used for fugitive dust control during construction is based on a one-phase project construction schedule. Emissions generated from the embodied energy of potable water used during construction equal 307 metric tonnes of CO_2e. This estimate includes gallons of water used during the construction of both horizontal and vertical elements included in the Project. Total emissions associated with construction related activities have been included in the Construction section below.

There are few effective measures to reduce episodic water use during the construction phase, and therefore, they are not included in the subsequent discussion of strategies to reduce GHG emissions.

Overview of water-related GHG emissions calculations

Water-related emissions primarily reflect the use of electricity to pump, treat, and convey water. The result is that every gallon of water is associated with a significant amount of embodied electricity and, consequently, greenhouse gas emissions. Water-related emissions are estimated based on two primary components:

1. *Energy use intensities* for each water source (e.g., kilowatts per gallon); and

2. *Emissions intensities* per unit energy supplied (e.g., kilowatt hour of purchased electricity).

Strategies to reduce water-related emissions include actions to reduce water consumption through water efficiency and the use of water sources with lower embodied energy intensities (e.g., reclaimed water).

4. Solid waste

Solid waste is associated with embodied energy. Residential waste generation was based on the median from statistics from the City of Los Angeles Department of Public Works, City of Los Angeles Waste Characterization & Quantification Study, Year 200, July 2002, and California Integrated Waste Management Board.[27] These generation rates were reduced to account for the LA regional solid waste diverse rate of 49%. The remaining operational (i.e., annually reoccurring) solid waste streams were converted to GHG emissions based on the generic emissions factor of 0.23 metric T CO_2e/tonnes of waste. This is a typical value based on the US EPA's Waste Reduction Model (WARM).

Overview of solid waste-related GHG emissions calculations

Solid waste-related emissions reflect the life cycle of materials. The details of the relationship between solid waste and greenhouse gas emissions are complex and highly variable. However, for planning purposes, tons of solid waste can be related to a certain number of metric tonnes of greenhouse gas emissions. Strategies to reduce solid waste-related emissions typically involve reducing waste generation and increasing diversion to recycling programs.

[27] City of Los Angeles information based on estimated provided in the "Utilities – Solid Waste" section of the EIR. California Integrated Waste Management Board. Source: http://www.ciwmb.ca.gov/WasteChar/WasteGenRates/Residential.htm.

5. Transportation

Mobile source emission estimates associated with operation of the proposed Project are based on the trips generated as reported in the transportation study prepared for the proposed Project.[28] Key parameters for estimating annual greenhouse gas emissions include:

- The number of average daily trips
- Average trip length (by trip type)
- Annual vehicle miles traveled
- Emissions per mile traveled

The transportation study provided an estimate of the number of daily trips generated due to various District developments (e.g., Mixed-Use Residential Area, Entertainment District, Business District, and Studio District). The total vehicle miles traveled (VMT) were based on assumed trip types, trip purpose, and trip lengths similar to those assumed in the URBan EMISsions (URBEMIS) 2007 model (version 9.2.4) program. Since the traffic study provides an estimate based on daily vehicle travel, the annual VMT are estimated by conservatively assuming that the daily trips will occur 365 days per year. The emission factors were extracted from EMFAC 2007 version 2.3. The detailed calculations are shown in the Project's Air Quality Technical Report and/or its appendices thereto.

It is important to recognize that even though transportation-related emissions are ultimately reported in the same units as building and infrastructure-related emissions (metric tonnes CO_2e), the basis for these types of emissions estimates are significantly different, as is their relative accuracy. GHG emissions from buildings and infrastructure are tightly connected to the Project and relatively well-constrained by a combination of historic observations of energy use, statistical databases, energy code, and simulation models. Transportation emissions are associated with larger-scale connections between the Project, the surrounding area and region, and choices about transportation technology made by a variety of third parties. This means that it is not clear what fraction of annual GHG emissions should be associated with the Project, and there is no widely-accepted protocol for assessing transportation-related GHG emissions. For example, the California Climate Action Registry categorizes transportation emissions as Scope 3 indirect emissions – a classification that makes reporting optional.

As indicated in the introduction, this analysis takes a comprehensive view of Project-related GHG emissions and recognizes the potential influence of the Project location and design on transportation emissions. This analysis makes a number of conservative assumptions that are likely to over-estimate *absolute* greenhouse gas emissions while maintaining statistically-accurate *relative*

[28] Additional information is available in the Traffic Impact Analysis Section.

changes in transportation between Project scenarios. In other words, the *absolute* amount of annual greenhouse gas emissions is likely to be high while the *relative* changes in emissions reflect current understanding of the implications of the Project location and project design features.

Overview of transportation-related GHG emissions calculations

Annual miles traveled were multiplied by fleet average emissions factors from the California Air Resources Board (ARB) which are available for both 2008 (current conditions) and 2020. ARB's 2020 emissions factors include Pavley Standards, as well as reductions associated with implementation of the Low Carbon Fuel Standard (LCFS).

6. Construction

Construction emissions represent an episodic, Scope 3 source of GHG emissions. Emissions are associated with the operation of construction equipment and the disposal of construction waste.

To be consistent with guidance from the SCAQMD for calculating criteria pollutant emissions from construction activities, only GHG emissions from on-site demolition and construction activities and off-site hauling (construction-related solid waste), and construction worker commuting are considered as Project-generated. As explained by CAPCOA, the information needed to characterize GHG emissions from manufacture, transport, and end-of-life of construction materials would be speculative at the CEQA analysis level (CAPCOA at 65). Therefore, the construction analysis does not assess such GHG emissions. Furthermore, it is reasonable and consistent with criteria pollutant calculations to consider only the GHG emissions resulting from the incremental increase in usage of on-road mobile vehicles, electricity, and natural gas upon implementation of the Project as project-related.

On-site construction equipment emissions were calculated using the OFFROAD2007 model. The OFFROAD2007 model, which was created by ARB, accounts for Los Angeles County specific construction equipment in its emission inventory. The output values used in this analysis were adjusted to be Project-specific, based on usage rates, type of fuel, and construction schedule. These values were then applied to the construction phasing assumptions used in the criteria pollutant analysis to generate GHG emissions values for each construction year. Mobile source emission methodology for on-road construction emissions, associated with worker commute and delivery of materials, utilizes a vehicle miles traveled (VMT) rate calculated by URBEMIS2007 in order to generate values for annual emissions. Emission factors are derived from the EMFAC2007 model using light duty automobile (LDA) factors for worker commute and heavy duty truck (HDT) factors for deliveries. A more complete description of construction emissions calculations is available in the Project's Air Quality Technical Report.

Total construction emissions vary based on construction phasing. A three-phase construction schedule is estimated to generate a total of 180,055 metric tonnes of CO_2e. These differences reflect variation in the duration and intensity of heavy vehicle use during these schedules. The higher, three-phase estimate for total construction emissions for on-site equipment has been presented in Table 4 below.

GHG emissions associated with water include episodic water use for fugitive dust control during construction and annual water consumption. Total water used for fugitive dust control during construction is based on a one-phase project construction schedule. Emissions generated from the embodied energy of potable water used during construction equal to a total of 307 metric tonnes of CO_2e. This estimate includes gallons of water used during the construction of both horizontal and vertical elements included in the Project.

Table 4 shows total and annualized construction-related emission including 2020 state mandates. All other tables in this report represent on-site construction equipment and water-related construction emissions as annualized over a performance period of 30 years (e.g., total emissions divided by 30 years).

Table 4: Scope 3 Construction-Related Emissions (total and annualized with 2020 Mandates)

	Total Emissions	**Annualized Emissions**
Scope 3: Water (Construction-related)	307	10
Scope 3: Construction	180,055	6,002
TOTAL	**180,362**	**6,012**

There are few effective measures to reduce episodic water use during the construction phase, and therefore, they are not included in the subsequent discussion of strategies to reduce GHG emissions.

Section 3. Project Design Features

The Project is designed to represent a substantial break from business-as-usual. This is achieved through a combination of project design features that work together to reduce the relative rate of GHG emissions associated with the Project. The following sections provide details about emissions-reducing project design features associated with each component of the Project.

Business, Entertainment and Studio Areas

Overview

The Project proposes a 33% expansion of the square footage in the Business, Entertainment, and Studio Areas. The Business, Entertainment and Studio Areas are a unique combination of land uses – one that does not provide an easy fit with conventional performance baselines. As the Business, Entertainment and Studio Areas expand, the Project will increase energy efficiency through the design and operation of new buildings (approximately 48% of energy use in these Areas). The Project includes the demolition of 648,000 square feet of older, less energy efficient buildings and replacement with more energy efficient buildings.

Project Design for Reducing Emissions

The Business, Entertainment and Studio Areas have committed to the energy efficient design, construction, and operation of all new buildings, including the following emissions reducing project design features:

- Construction of all new Studio, Studio Office, Office, Entertainment, Entertainment Retail, Amphitheater, and Hotel buildings will exceed Title-24 (2005) energy requirements by 15%.

Some of the benefits achievable through green project design include reducing harmful greenhouse gas emissions, conserving energy and water, reducing waste sent to landfills, and creating a healthier and safer environment for building occupants.

Hotel

As the specific design of the Hotel is not known at this time, energy savings opportunities were evaluated with respect to the building type performance data in the DEER database. The average California hotel uses 10.8 kwhr/sf/year and 0.5 therms/sf/year. Based on DEER energy analysis the hotel will reduce energy consumption and exceed Title-24 (2005) by 15%. This may be accomplished through a combination of energy efficiency and green power purchasing.

Mixed-Use Residential Area

Overview

The Mixed-Use Residential Area is a new mixed-use residential development. BAU for the Mixed-Use Residential Area is defined as buildings meeting the minimum requirements of the Title-24 (2005) energy code and typical design, construction, and operational practices. The proposed Project assumes three construction types defined as high-rise (buildings more than 8 stories, steel and concrete construction), mid-rise and multi-family (2-8 stories, including both wood and steel frame construction), and single family low-rise (1-3 stories, wood framed construction).

Emissions

High-rise, Mid-rise, and Low-rise buildings will be designed to exceed Title-24 (2005) energy requirements by 15%.

These emissions reductions for Mixed-Use Residential Area residential land uses can be achieved through a combination of existing technologies. Attachment 1 lists features that can be combined to achieve the specified targets for each residential land use category. These features would be combined as necessary according to whole-building energy simulations. However, not all of the listed measures are suitable for all of the building types. Attachment 1 represents only a sample of many possible design features, and, over time, it is likely that new technologies and building techniques may provide alternative strategies to reach the same performance levels. That is, this list is meant to be illustrative of the ways in which the Project can achieve the specified energy performance targets relative to Title-24 (2005) at the time of build out in approximately 2030.

Additionally, the Project will include the following energy saving and emission reducing features during the design and construction of each project component:

- Installing energy efficient heating and cooling systems, equipment, and control systems
- Installing consumption feedback modules to provide real-time and historical feedback to residents on their homes' energy consumption
- Installing energy efficient appliances (refrigerators, clothes washers, clothes dryers, dishwashers, ventilation fans, and ceiling fans) – e.g., Energy Star or equivalent
- Installing efficient lighting and lighting control systems
- Installing efficient pumps and motors for pools and spas
- Installing LEDs for traffic and street
- Installing light colored 'cool' roofs [29]

[29] Cool roof technology can reduce urban heat island impacts. Specific features may include high SRI roof materials (roofs sloped at 2:12 will have an SRI of at least 78 and roofs sloped greater than 2:12 will have an SRI of at least 29) and cool roof coverings and coatings. Although these features are recognized by the Climate Action Team, they are difficult to quantify at the level of specification available for the Project. Consequently, the Project does not take credit for these PDFs when calculating the Project's break from BAU. This may contribute to an underestimation of the net reduction from BAU.

- Providing education on energy efficiency, water conservation, and waste recycling services
- Installing Heating, Ventilation, and Air-Conditioning, refrigeration, and fire suppression equipment that do not contain CFCs
- For mechanically or naturally ventilated spaces in the building, meet the minimum requirements of Section 121 of the California Energy Code or the applicable local code, whichever is more stringent
- Adhesives, Paints, Stains, Coatings, and Carpet shall be low VOC
- MERV 6 or higher filters are installed on central air and heating systems

Green Power Purchasing

The Mixed-Use Residential Area of the Project as proposed will achieve additional GHG emissions reductions via green power purchasing. Residential land uses including high-rise buildings, mid-rise buildings, and low-rise buildings will be required to purchase 20% green power.[30] The 20% purchase will be achieved through the Project's participation in LADWP's Green Power Program. The GHG emissions reductions reflected in this report assume green power purchases equivalent to 20% of electricity demand for residential, with green power usage somewhat higher because of LADWP's on-going efforts to add renewable generation to its fleet.

Table 5 summarizes the GHG emissions reduction targets for the Mixed-Use Residential Area residential land use categories. The combination of targets illustrated in the table will help meet the Project-wide emissions reduction goal. A wide variety of alternative combinations of goals are available that would also meet or exceed the Project-wide goal depending the mixture of land uses developed.

Table 5: Project Emissions Reduction Targets by Construction Type

Construction Type	Project Emissions Reduction (implementing both energy efficiency strategies and LADWP green power purchase)
High-rise	• Title-24 (2005): Exceed by 15% • 20% green power
Mid-rise	• Title-24 (2005): Exceed by 15% • 20% green power

[30] Green power is a subset of renewable energy and represents those renewable energy resources and technologies that provide the highest environmental benefit. USEPA defines green power as electricity produced from solar, wind, geothermal, biogas, biomass, and low-impact small hydroelectric sources. Green power sources produce electricity with an environmental profile superior to conventional power technologies and produce no anthropogenic GHG emissions. More information is available at http://www.epa.gov/greenpower/gpmarket/index.htm (last visited 11/20/2008).

Low-rise	• Title-24 (2005): Exceed by 15% • 20% green power

Project Design Features for Improving Infrastructure

The broad category of Mixed-Use Residential Area infrastructure provides opportunities for energy savings and emissions reductions. This includes the design and operation of subterranean parking garages. Technologies exist to improve substantially over standard practice.

Subterranean Garages

Underground parking facilities use a surprising amount of electricity and are associated with a corresponding amount of GHG emissions. The Mixed-Use Residential Area infrastructure will include the following emissions reducing features:

- Demand control ventilation: Ventilation provided in response to actual number of occupants and occupant activity
- Efficient lighting

Project Design Features for Water Conservation

The Project can achieve energy savings and emissions reductions through a number of indoor and outdoor water conservation measures. Reducing the Project's potable water use is consistent with the goal of reducing potable water use outlined in the Adopted Scoping Plan.

BAU water consumption for outdoor, landscaped areas was defined with respect to past use on the site and conditions anticipated in the Project Water Supply Assessment. Emissions reductions will be achieved through:

- Water efficient landscaping
- Use reclaimed water for landscape irrigation
- Installation of infrastructure to deliver and use reclaimed water
- Expanded use of high efficiency irrigation systems, including weather-based irrigation controllers with rain shutoff technology or smart irrigation controllers for any area that is either landscaped or designated for future landscaping
- Proper hydro-zoning, turf minimization, and use of native/drought tolerant plant materials
- Education on water conservation

Project Design Features Reducing Indoor Water Use

BAU water consumption for indoor applications was defined using fixture and flow rates specified in the National Efficiency Standards and Specifications for Residential and Commercial Water-Using Fixtures and Appliances outlined in the Energy Policy Act of 1992, 2005 (EPAct 1992, EPAct 2005). Project emissions reductions targets will be achieved by specifying indoor water fixtures that meet or exceed the following performance levels:

- High Efficiency Toilets: 1.28 gallons/flush or less (All Applications)
- High Efficiency Urinals: 0.5 gallons/flush or less (Commercial Applications)
- Restroom Faucets: 1.5 gallons/minute or less (All Applications)
- Kitchen Faucets: 2.0 gallons/minute or less (Residential Applications); 1.5 gallons/minute or less (Commercial Applications)
- Shower-heads: 2.0 gallons/minute or less (Residential Applications)
- Public Restroom: self-closing faucets (Commercial Applications)
- High Efficiency clothes washers (water factor of 6.0 or less) (Residential Applications)
- High Efficiency dishwashers (Energy-Star rated or equivalent) (Residential Applications)

By specifying the above indoor water conserving fixtures, the Project will reduce potable water consumption by approximately 20%. This reduction is assumed to apply to 60% of non-landscaping-related, indoor water uses. The remaining 40% of building-related water use is typically associated with building operations, such as heating and cooling system operation[31].

Project Design Features for Solid Waste

The BAU scenario for the Project includes the regional solid waste diversion rate of 49%. The Project as proposed sets a solid waste diversion target of 65% for operational waste. The Project will also establish a construction waste diversion program to divert up to 65% of construction related waste. Emissions reported for the Project as proposed are associated with solid waste sent to the landfill only. Any emissions associated with diverted waste have not been calculated. In addition, recycling centers will be provided in readily accessible areas within buildings for depositing, storage, and collection of non-hazardous materials for recycling.

Project Design Features for Transportation

GHG emissions reductions from the Project can be evaluated in two respects. First, they can be considered with respect to the goals of the CalTrans Climate Action Plan. Second, they can be considered with respect to reductions anticipated through implementation of the Project's Transportation Demand Management (TDM) program.

[31] Domestic water breakdown based on EPA Water Sense Data (http://www.epa.gov/watersense/docs/ws_indoor508.pdf.)

CalTrans Climate Action Plan

The GHG emissions reduction performance of transportation-related project features can be evaluated with respect to the CalTrans Climate Action Plan. The CalTrans plan suggests that local project design features may be able to influence approximately 10-30% of overall GHG emissions through so-called Smart Land Use and Intelligent Transportation Systems. CalTrans identifies the goal of these measures as the reduction in per capita vehicle travel, relief from congestion, and improvement in travel time in congested corridors and result in:

> *"…more compact, accessible, multi-model communities where travel distances are shorter, people have more travel options, and it is possible [to] walk and bicycle to more destinations…" (page 11)*

The CalTrans Action Plan calls for "Local Development/Intergovernmental Review" that ensures that local land use planning and development decisions include the provision of:

- *Transportation choices*
    - Including transit, intercity rail, passenger service, air service, walking, biking
- *Land use design*
    - Including urban infill development, mixed used development, transit oriented development

The Project includes a number of features that support the CalTrans Climate Action Plan goals. The Project's location as a regional in-fill site, its proximity to bus transit and subway service, and the association of jobs and housing are consistent with the CalTrans intent to promote transportation choices, urban infill, mixed-use, and transit oriented development.

The comparison to the CalTrans goals provides a qualitative measure of the consistency of the Project with state plans for emissions reduction.

Transportation Demand Management Program

The proposed Project is a transit-oriented development (TOD) that is consistent with the goal of promoting higher density mixed-used development that provides a variety of multi-modal transportation choices. The Project's TDM plan is a set of strategies that will encourage Project employees and patrons to reduce vehicular traffic on street and freeway systems during the most congested time periods of the day by promoting non-auto travel through pedestrian-friendly design and orientation that facilitates transit use.

The value of TDM strategies for reducing auto-related GHG emissions reduction can be evaluated with the following equation:

Transportation GHG emissions = (Miles traveled) x (miles per gallon) x (GHG per gallon)

This equation can be adapted to consider the implications of non-auto transit modes.

The following bullets evaluate the components of the TDM project with respect to their potential impact on GHG emissions:

- Flexible work schedules and telecommuting programs
    - *Impact on GHG emissions:* Reduce miles traveled
- Alternative work schedules
    - *Impact on GHG emissions:* Reduce miles traveled
- Mixed-used development
    - *Impact on GHG emissions:* Reduce miles traveled
- Bicycle and pedestrian-friendly environment
    - *Impact on GHG emissions:* Reduce miles traveled
- Rideshare/carpool/vanpool promotion and support
    - *Impact on GHG emissions:* Increase (net) miles per gallon
- Shuttle buses operated by NBCU and residential HOA
    - *Impact on GHG emissions:* Increase (net) miles per gallon
- Transit passes for employees and residents
    - *Impact on GHG emissions:* Increase (net) miles per gallon
- Education and information on alternative modes
    - *Impact on GHG emissions:* Reduce miles traveled, potentially increase net miles per gallon (e.g., rideshare/carpool/vanpool)
- Transportation Information Center
    - *Impact on GHG emissions:* Reduce miles traveled, potentially increase net miles per gallon (e.g., rideshare/carpool/vanpool)
- Transportation Management Association
    - *Impact on GHG emissions:* Reduce miles traveled, potentially increase net miles per gallon (e.g., rideshare/carpool/vanpool)

The transportation study for the Project concludes that the TDM program and transit proximity can be credited with an 11.3 % reduction in trip generation, including a reduction in trip length, and by extension a reduction in transportation-related GHG emissions.

The location of the project may also help reduce home-based work (HBW) trips. The average home to work trip length in Los Angeles County is 13.67 miles. The average home to work trip length for Project residences is 10.31 miles. Therefore, due to the proposed Project's proximity to the Los Angeles County Metropolitan Transportation Authority's Bus Transit and Redline Subway Station located within half a mile from the Project Site, the reduction in trip length is calculated at 25%. This reduction is applied to the 32% of total project trips identified as HBW trips. This results in an overall reduction of 6.5% due to the impact of the project's location on HBW trip length.

Additional information is available in the *Transportation Improvement and Mitigation Program* section of the EIR.

Sequestration in Trees

Trees capture and temporarily sequester atmospheric greenhouse gas emissions in the form of woody materials. The project will remove and restore trees in ratios required by the City and County. The balance of sequestration associated with removal and long-term restoration is part of the project's GHG inventory.

Estimates of tree carbon storage were based on a numerical benefits model developed by the Sacramento Municipal Utility District (SMUD) in collaboration with the US Department of Agriculture Forest Service, Center for Urban Forest Research. The model is designed to provide results consistent with the California Climate Action Registry's Urban Forest Project Reporting Protocols.[32] Calculations from the SMUD model were supplemented with estimates from the US Forest Service CUFR Tree Carbon Calculator.

Mitigation requirements in both the City and County are described in the Biological Resources Section of the EIR. The most important considerations for emissions include the mitigation ratio, the size and type of replacement trees, and the allowable mortality for replacement trees. Tree carbon content is typically measured as a function of diameter at breast height (DBH). However, local ordinances are also expressed, under some circumstances, in terms of canopy replacement. The emissions calculations used in this study reflect a simplifying assumption that canopy area is linearly related to tree volume.

Over a 30 year period, the balance of removal and restoration result in a net annual addition to project GHG emissions. This reflects the balance between the loss of old, established trees and the growth of new trees. The old trees hold a considerable amount of carbon in woody biomass. Unless this biomass is reused (e.g., in construction products), this biomass is assumed to be lost when they are cut down and released over time back into the atmosphere. The replacement trees are more numerous and fast growing, but they are small and subject to mortality. The project will maintain the number of restored trees over a period of 5 to 7 years in the City and County respectively. Consequently, zero net mortality was assumed for this period, and a typical mortality profile was assumed after the 5 and 7 year maintenance periods end.

Table 6: Summary table of changes in carbon sequestration (Measured in metric tonnes CO_2e)

	Total Existing Sequestration	Total Project Sequestration	Net Carbon Sequestration Loss
City	16,855	7,781	9,074
County	7,868	6,696	1,171

[32] http://usage.smud.org/treebenefit/SavingCarbon.aspx

Summary of GHG Emissions Reduction from Project Design Features

Table 7 and 8 reflect green power purchasing equal to 20% for Mixed-Use Residential Area. These calculations reflect the potential reductions associated with the implementation of the combination of project design features described in the preceding sections and the full implementation of current state mandates. Actual performance may vary based on a number of factors, including the details of the developed land use, mixture of building sizes and types, and available technologies.

Table 7: Annual "As Proposed" GHG emissions by Scope (with annexation and diverse product mix). All Emissions Net New met tCO_2e

	"As Proposed" Project	%
Scope 1: Direct combustion	11,528	17.8%
Scope 2: Purchased electricity	28,727	44.3%
Scope 3: Transportation, water, solid waste	18,538	28.6%
Scope 3: Construction	6,012	9.3%
Subtotal	**64,806**	100%
Sequestration/Emissions	342	
TOTAL	**65,148**	

Table 8: Annual GHG Emissions Summary (with annexation and diverse product mix). All Emissions Net New met tCO_2e

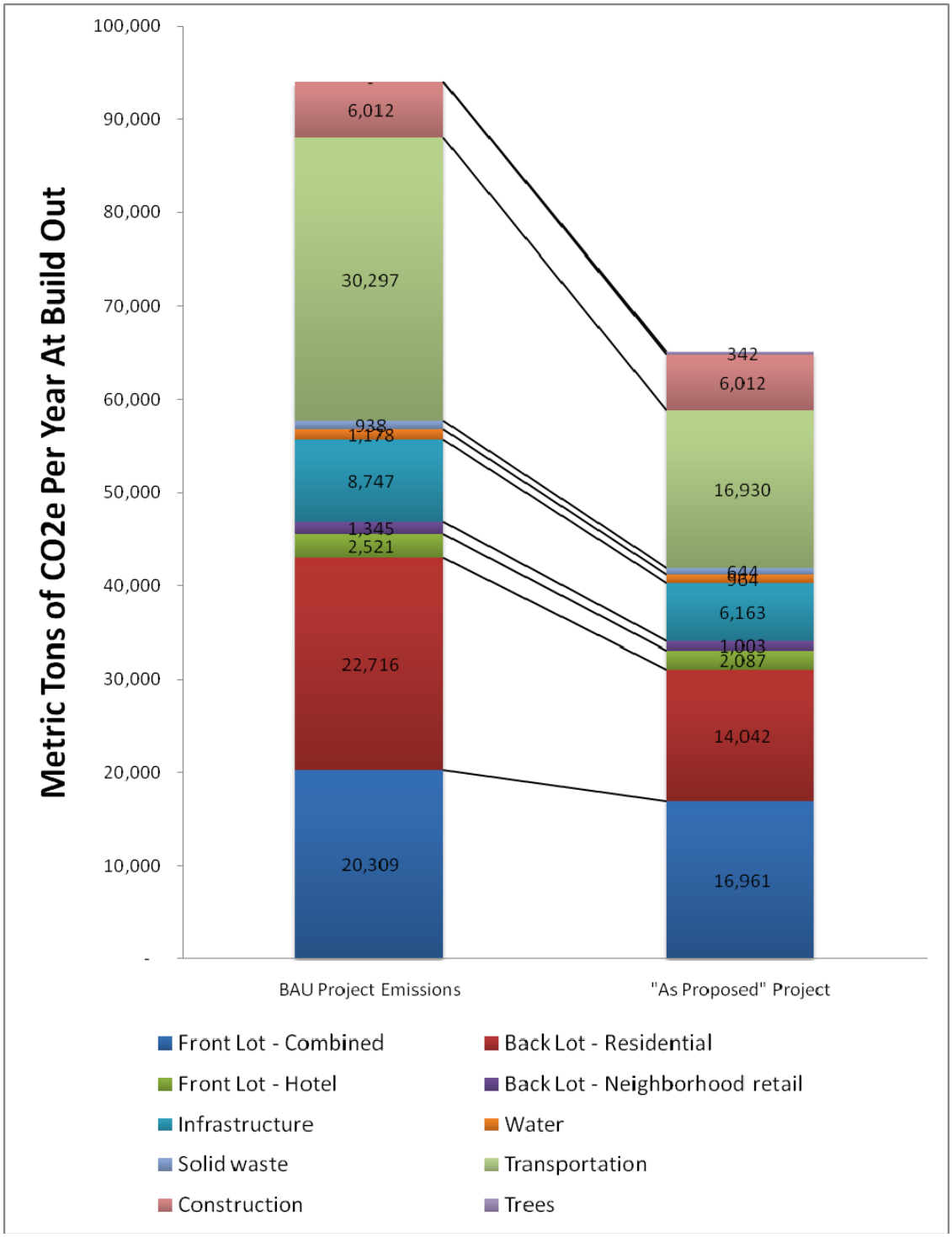
Description	BAU Project Emissions	"As Proposed" Project	Change
Front Lot - Combined	20,309	16,961	-16%
Back Lot - Residential	22,716	14,042	-38%
Front Lot - Hotel	2,521	2,087	-17%
Back Lot - Neighborhood retail	1,345	1,003	-25%
Infrastructure	8,747	6,163	-30%
Water	1,178	964	-18%
Solid waste	938	644	-31%
Construction	6,012	6,012	
Trees	-	342	
Transportation	30,297	16,930	-44%
TOTAL EMISSIONS*	94,063	65,148	
TOTAL REDUCTION FROM BAU		-31%	

As the exact configuration of buildings under the Project is unknown at this time, the overall reduction could vary under other building configurations. In addition, as the final decision on

annexation will not occur until after Project approval, the overall reduction under the no-annexation scenario was evaluated. The percentage reduction below BAU for the Project under the no-annexation scenario would be comparable to the annexation scenario. Variations may exist in the percentage reduction attributable to any particular project design feature based on the configuration of buildings within LADWP and SCE service territories. However, the overall reduction for BAU would likely remain unchanged.

The figure below illustrates the difference between BAU and "as proposed" emissions graphically in line with similar figures in the Adopted Scoping Plan.

Figure 2. Comparison of total greenhouse gas emissions under the "Business-as-Usual" and "As Proposed" scenarios. The overall reduction is 31% from BAU.



Section 4. Conclusions and Cumulative Impacts

Cumulative GHG impacts

While the proposed Project is expected to emit GHGs, the emission of GHGs by a single project into the atmosphere is not itself necessarily an adverse environmental effect. Rather, it is the increased accumulation of GHGs from many projects and many sources in the atmosphere that cumulatively contribute to global climate change. The resultant consequences of that climate change can cause adverse impacts on people and the environment. A project's GHG emissions typically will be very small in comparison to state or global GHG emissions and, consequently, they will, in isolation, have no significant direct impact on climate change.

This Project's GHG emissions are minimal when compared to statewide GHG emissions. Due to the complex physical, chemical, and atmospheric mechanisms involved in global climate change, it is likely impossible to identify the specific impact, if any, to global climate change from one project's incremental increase in global GHG emissions. As such, the project GHG emissions and the resulting significance of potential impacts are more properly assessed on a cumulative basis. Therefore, the significance of potential impacts from the proposed Project's GHG emissions is determined on a cumulative basis.

The State has mandated a goal of reducing state-wide emissions to 1990 levels by 2020, even though State-wide population and commerce is predicted to continue to expand. In order to achieve this goal, ARB is in the process of establishing and implementing regulations to reduce Statewide GHG emissions. However, currently there are no significance thresholds, specific reduction targets, and no approved policy or guidance to assist in determining significance at the project or cumulative level. Additionally, there is currently no generally accepted methodology to determine whether GHG emissions associated with a specific project represents new emissions or existing, displaced emissions.

Table 8 and Figure 2 illustrate that the Project's project design features will contribute to a relative reduction in greenhouse gas emissions. These reductions represent a break from BAU and support State goals for emissions reduction. The methods used to establish this relative reduction are consistent with the approach used in the Air Resources Board Adopted Scoping Plan for the implementation of AB 32. The Project also identifies appropriate circumstances for the consideration for specific Early Action measures described by the California Climate Action Team.

The California Attorney General's Office has taken an active role in addressing climate change via CEQA, including, but not limited to: submitting comment letters on draft CEQA documents; filing CEQA lawsuits; and entering into related settlement agreements. In particular and most pertinent for our purposes here, the Attorney General's Office has created and routinely updates a Fact Sheet listing project design features to reduce GHG emissions.[33] The Attorney General's Office created this Fact Sheet primarily for the benefit of local agencies processing CEQA documents, acknowledging that "local agencies will help to move the State away from 'business as usual' and toward a low-

[33] CA Attorney General's Office Fact Sheet, *The California Environmental Quality Act – Addressing Global Warming Impacts at the Local Agency Level.* (Source: http://ag.ca.gov/globalwarming/pdf/GW_mitigation_measures.pdf) (Last visited 5/15/2008).

carbon future."[34] The Fact Sheet explains that the listed "measures can be included as design features of a project," but emphasizes that they "should not be considered in isolation, but as part of a larger set of measures that, working together, will reduce GHG emissions and the effects of global warming."[35]

The Project is consistent with the Fact Sheet and utilizes many of the measures listed therein. The Project's design features demonstrate a commitment to creating a substantial change from BAU. As recommended by the Attorney General, the Project does not consider design features in isolation, and the Project explicitly includes an integrated set of emissions reducing features addressing each land use type proposed for the Project. The Project also sets a series of performance targets that can guide design, construction, and operational practices throughout the life of the Project. The result will be substantial reduction in GHG emissions in comparison to BAU. The Project also considered and described specific combinations of current technologies and construction techniques that can achieve targeted emissions reductions under current conditions. However, the Project also explicitly recognizes that the construction practices and energy-related technologies are changing quickly. Consequently, it is necessary and prudent to provide flexibility to select the most cost-effective options available to meet emissions reduction targets when each phase of development actually takes place. This flexible approach is consistent with the recommendations of the Attorney General, aspirations expressed by the Governor, and AB 32.

The Project is consistent with the approach outlined in the ARB Adopted Scoping Plan, particularly its emphasis on the identification of emission reduction opportunities that promote economic growth while achieving greater energy efficiency and accelerating the transition to a low-carbon economy. The location and design of the Project reflect and support these core objectives. For example, the Project demonstrates this through its consistency with the CalTrans Climate Action Plan goals and its performance-based targets for emissions reduction which can be achieved through combinations of energy efficiency and green power purchasing.

The Project is also broadly consistent with the City of Los Angeles Green LA action plan and the County of Los Angeles Green Building Program. Both policies emphasize improving energy conservation, energy efficiency, increasing renewable energy generation, and changing transportation and land use patterns to reduce auto dependence. The Project's performance-based emission reduction targets and transit-oriented development pattern reflect and advance these aspirations. Many of the Project's emissions reduction targets may also be achieved through the use of green buildings, such as those required through the City and County green building ordinances. As recommended by the ARB Adopted Scoping Plan, the Project has considered opportunities to use green building, where feasible as a framework for achieving cross-cutting emissions reductions.

In the absence of standards and established significance thresholds, and given the Project's consistency with State, County, and City goals and the Projects selected emissions reduction strategies, the contribution to the cumulative impact of global climate change is considered less than significant. As such, no mitigation is required.

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[34] Id.

[35] Id.

ATTACHMENT 1

High-Rise and Mid-Rise Building Energy Efficiency Features

- High performance curtain wall assembly (U-Value of 0.30 and solar heat gain coefficient of 0.26)
- High efficiency hydronic heat pumps (15 EER) and split A/C systems (13 EER)
- Efficient boilers for the hydronic loop (0.84%)
- Tankless water heaters (0.84 recovery efficiency)
- High efficacy hardwired lighting for 50% of the total lighting use
- R-19 Optimum Value Engineered walls
- High efficiency, combined hydronic heating tankless domestic hot water heaters
- Low loss, tested HVAC ducts
- Low solar heat gain, low-e, high performance windows

Global Warming Technical Report

Appendix A

March 2010

NBCU GREENHOUSE GAS INVENTORY: TECHNICAL ASSUMPTIONS

The following technical assumptions have been used as the foundation for quantifying the greenhouse gas inventory of the Project. The results of the inventory are presented in the body of the EIR Global Climate Change Technical Report. This section outlines the assumptions, calculations, and information sources underlying the GHG inventory.

Although no numerical thresholds of significance have been developed, the California Climate Action Registry (CCAR) General Reporting Protocol (GRP) provides a number of basic procedures and guidelines for calculating and reporting GHG emissions from a number of general and industry-specific activities.[1] The CCAR GRP is based on the "Greenhouse Gas Protocol: A Corporate Accounting and Reporting Standard" developed by the World Business Council for Sustainable Development (WBCSD) and the World Resources Institute (WRI) through "a multi-stakeholder effort to develop a standardized approach to the voluntary reporting of GHG emissions."[2] No specific protocols are available for land use projects, so the CCAR GRP has been adapted to address GHG emissions from the Project. The information provided in this section is consistent the CCAR GRP's minimum reporting requirements.

The CCAR GRP recommends the separation of GHG emissions into three categories that reflect different aspects of ownership or control over emissions. They include:

Scope 1: Direct, on-site combustion of fossil fuels (e.g., natural gas, propane, gasoline, and diesel).

Scope 2: Indirect, off-site emissions associated with purchased electricity or purchased steam.

Scope 3: Indirect emissions associated with other emissions sources, such as third-party vehicles and the embodied energy.[3]

Following with guidance developed in the CCAR, existing site and "As Proposed" Project emissions have been presented by Scope. However, in order to better understand and align the activities and sections of the EIR, "As Proposed" emissions have also been presented by emissions source categories, e.g. residential, transportation, water, etc. Fugitive emissions resulting from the development and operation of this Project have not been included in this analysis.

The following lists the emissions sources for existing & "As Proposed" Project emissions organized by Scope:

- Scope 1 - Building-related natural gas emissions, Studio-related on-site fuel combustion emissions
- Scope 2 - Building-related emissions associated with purchased electricity, Studio-related emissions associated with purchased electricity

[1] California Climate Action Registry, General Reporting Protocol Version 3.1, January 2009. Source: http://www.climateregistry.org/resources/docs/protocols/grp/GRP_3.1_January2009.pdf.
[2] California Climate Action Registry General Reporting Protocol, Version 3.1, (January 2009). Source: http://www.climateregistry.org/resources/docs/protocols/grp/GRP_3.1_January2009.pdf.
[3] Embodied energy refers to the quantity of energy required to manufacture, and supply to the point of use, a product, material, or service. Source: http://en.wikipedia.org/wiki/Embodied_energy

- Scope 3 - Transportation, water use, solid waste generation, and construction (not included in existing emissions, project emissions only)

EXISTING CONDITIONS GHG EMISSIONS

GHG Emissions - Existing Conditions Emissions by Scope

Scope	Existing Emissions	%
Scope 1: Direct combustion	19,308	15
Scope 2: Purchased electricity	37,427	30
Scope 3: Transportation, Solid Waste, Water	69,228	55
TOTAL[4]	**125,964**	**100%**

GHG Emissions - Existing Conditions Emissions by Scope & Source

Source	Scope 1	Scope 2	Scope 3	Total CO_2E
Existing Building Operations	19,308	37,427		**56,735**
Transportation			66,780	**66,780**
Water			1,132	**1,132**
Solid Waste			1,316	**1,316**
TOTAL[5]	**19,308**	**37,427**	**69,228**	**125,964**

[4] Minor inconsistencies may occur between subtotals and totals due to rounding.
[5] Minor inconsistencies may occur between subtotals and totals due to rounding.

BUSINESS-AS-USUAL PROJECT GHG EMISSIONS

GHG Emissions – Business-as-Usual (BAU) Project Emissions by Scope

Scope	BAU Project	%
Scope 1: Direct combustion	13,865	14.7%
Scope 2: Purchased electricity	41,772	44.4%
Scope 3: Transportation, water, solid waste	32,413	34.5%
Scope 3: Construction (annualized)	6,012	6.4%
Subtotal[6]	**94,063**	**100%**
Sequestration/Emissions	-	-
TOTAL[7]	**94,063**	**100%**

GHG Emissions – Business-as-Usual (BAU) Project Emissions by Scope & Source

Source	Scope 1	Scope 2	Scope 3	Total CO_2E
Combined Studio Uses	7,062	13,246		**20,308**
Residential	4,723	17,992		**22,715**
Hotel	1,125	1,396		**2,521**
Neighborhood Retail	144	1,201		**1,345**
Infrastructure	810	7,936		**8,746**
Water			1,178	**1,178**
Solid Waste			938	**938**
Construction			6,012	**6,012**
Trees			-	**-**
Transportation			30,297	**30,297**
TOTAL[8]	**13,865**	**41,772**	**38,425**	**94,063**

[6] Minor inconsistencies may occur between subtotals and totals due to rounding.
[7] Minor inconsistencies may occur between subtotals and totals due to rounding.
[8] Minor inconsistencies may occur between subtotals and totals due to rounding.

"AS PROPOSED" PROJECT GHG EMISSIONS

GHG Emissions – "As Proposed" Project Emissions by Scope

Scope	"As Proposed" Project	%
Scope 1: Direct combustion	11,528	17.8%
Scope 2: Purchased electricity	28,727	44.3%
Scope 3: Transportation, water, solid waste	18,538	28.6%
Scope 3: Construction	6,012	9.3%
Subtotal[9]	64,806	100%
Sequestration/Emissions	342	
TOTAL[10]	**65,148**	

GHG Emissions – "As Proposed" Project Emissions by Scope & Source

Source	Scope 1	Scope 2	Scope 3	Total CO_2E
Combined Studio Uses	6,146	10,816		**16,962**
Residential	3,501	10,542		**14,043**
Hotel	956	1,130		**2,086**
Neighborhood Retail	115	888		**1,003**
Infrastructure	810	5,352		**6,162**
Water			964	**964**
Solid Waste			644	**644**
Construction			6,012	**6,012**
Trees			342	**342**
Transportation			16,930	**16,930**
TOTAL[11]	**11,528**	**28,727**	**24,892**	**65,148**

[9] Minor inconsistencies may occur between subtotals and totals due to rounding.
[10] Minor inconsistencies may occur between subtotals and totals due to rounding.
[11] Minor inconsistencies may occur between subtotals and totals due to rounding.

GENERAL ASSUMPTIONS

Assumptions for CO_2E Calculation (where applicable):

- CH_4 emissions are 23 times GWP of CO_2.
    - Source: California Climate Action Registry General Reporting Protocol Version 3.1 January 2009. Table C.1. Third Assessment Report (TAR, 2001)
- N_2O emissions are 296 times GWP of CO_2.
    - Source: California Climate Action Registry General Reporting Protocol Version 3.1 January 2009. Table C.1. Third Assessment Report (TAR, 2001)

CO_2 equivalent = Total CO_2 emissions + (Total CH_4 emissions x 23) + (Total N_2O) emissions x 296)

Emissions Factors: Electricity

- 2007 Utility-specific emissions factors for electricity have been used in this analysis for consistency with the guidance provided in the California Climate Action Registry General Reporting Protocol Version 3.1 January 2009.

- 1227.89 lbs CO_2 per MWh (megawatt hour) – Los Angeles Department of Water and Power (LADWP)
    - Source: California Climate Action Registry General Reporting Protocol Version 3.1 January 2009. http://www.climateregistry.org/resources/docs/PUP_Metrics-June-2009.xls

- 630.89 lbs CO_2 per MWh (megawatt hour) – Southern California Edison (SCE)
    - Source: California Climate Action Registry General Reporting Protocol Version 3.1 January 2009. http://www.climateregistry.org/resources/docs/PUP_Metrics-June-2009.xls
- 724.12 lbs CO_2 per MWh (megawatt hour) – California Statewide Average – WECC eGrid Subregion)
    - Source: California Climate Action Registry General Reporting Protocol Version 3.1 January 2009.

Equations: Electricity

Total CO_2 Emissions (metric tonnes) = [Electricity Use (MWh) x Electricity Emission Factor (lbs CO_2/MWh)] / 2204.62 pounds/metric tonne]

- Source: Source: California Climate Action Registry General Reporting Protocol Version 3.1 January 2009

Emissions Factors: Natural Gas

- 53.06 kg CO_2 per MMBtu (million Btu)

    - Source: California Climate Action Registry General Reporting Protocol Version 3.1 January 2009

Equations: Natural Gas

1 therm = 100,000 BTU = 0.1 million BTU.

Total CO_2Emissions (metric tonnes) = [Natural Gas Use (MMBtu) x Emission Factor (kg CO_2/million Btu)] x 0.001metric tonnes/kg.

- Source: California Climate Action Registry's General Protocol Version 3.1 January 2009.

Total CH_4 Emissions (metric tonnes) = [Fuel Use (MMBTU) x Emission Factor (g CH_4/MMBTU)] / 1,000,000 g/metric tonne.

- Source: California Climate Action Registry's General Protocol Version 3.1 January 2009.

Total N_2O Emissions (metric tonnes) = [Fuel Use (MMBTU) x Emission Factor (g CH_4/MMBTU)] / 1,000,000 g/metric tonne.

- Source: California Climate Action Registry's General Protocol Version 3.1 January 2009.

Emissions Factor: Water

- Potable Water - Embodied Energy – 0.0085 kWh/Gallon
    - Source: CTG Sustainable Communities Model® - http://www.opr.ca.gov/ceqa/pdfs/june08-ceqa.pdf
- Reclaimed Water - Embodied Energy – 0.0026 kWh/Gallon
    - Source: CTG Sustainable Communities Model® - http://www.opr.ca.gov/ceqa/pdfs/june08-ceqa.pdf

Equations: Water

Total CO2E Emissions (metric tones) = [Average Gallons per day x 365 Days/Year x Embodied Energy (kWh/gal) x California Statewide Electricity Emission Factor /1000 kWh/Mwh]

Emissions Factor: Solid Waste

- Carbon Emission Factor: EPA Simplified Warm Model:
    - 0.2326 MTCE/ton of landfilled solid waste

Equations: Solid Waste

Total Emissions (metric tonnes) = [Solid Waste Generated (tons) x Carbon Emission Factor (metric tonnes of eCO_2 / ton of specified solid waste) * (1 – Diversion Rate)]

Technical Assumptions and Methodologies

Residential Community Assumptions

BUILDINGS				
Buildings	**Stories**	**Parking**	**Average SF**	**DU/acre**
High Rise	8 to 12	3 sub	1000	150
Mid-Rise	6 to 8	2 to 3 sub	1000	100
Townhome	3	Garage, Podium	2000	12
Low-Rise Flats/TH/Lofts/Apts	4	2 sub/semi-sub	900	35
Mixed-Use	4 to 5 + Retail	Structure & surface	1125	45

INFRASTRUCTURE Assumptions

PARKING	Area (SF)
Subterranean Garage	2,597,900
Surface Parking	1,422,100
Parking Structure	NONE
Total Parking	4,020,000

Building Energy Calculation Methodologies

Assumptions for Residential Modeled Energy Use and Total Modeled Energy Use by Building Type

	BAU		"As Proposed"		BAU		"As Proposed"	
Building Model	**kWh/ (sqft,yr)**	**therms/ (sqft,yr)**	**kWh/ (sqft,yr)**	**therms/ (sqft,yr)**	**Total kWh per year**	**Total Therms per year**	**Total kWh per year**	**Total Therms per year**
High-Rise	7.61	0.19	6.39	0.14	17,840,183	444,280	14,973,725	322,116
Mid-Rise	8.00	0.21	7.42	0.17	11,493,146	296,218	10,653,407	241,226
Townhomes	4.51	0.26	5.03	0.23	603,241	34,253	673,174	30,863
Apartments	3.52	0.17	3.48	0.15	2,367,964	113,022	2,339,250	98,360

From each of the energy models, the electric and natural gas energy use intensity was defined for both the standard (Title 24 2005 compliant) and proposed (above code) case. This energy use intensity was then used to forecast energy consumption for each of the planned buildings using the following equation:

$$\text{Total Building Consumption} = \sum(\text{Building SF})_N * \text{EUI}_N$$

for each building type, where N represents the unique building type.

Lighting, appliance, and plug load energy consumption was conservatively estimated using the U.S. Department of Energy Building America Research Benchmark Definition (updated December 15, 2006). Detailed energy model descriptions and results are provided in the following section for residential models developed for the project.

Infrastructure Energy Calculation Methodologies and Assumptions

Surface Parking Alternatives

Total Surface Parking (SF)	1,422,100
Light Runtime (hrs/yr)	4,380

Type of Light Fixtures	Example Product	Power (W)	Lumens	Spacing (ft)	W/SF	kWh/SF
Baseline					0.080	0.350
Basic Metal Halide	TEMPO 1-2 MWF230 1xMHN-TD150W_842 CON S	167	12,900	82	0.041	0.178
Ceramic Metal Halide	TEMPO 1-2 SWF230 1xCDO-TT150W_828 CON S	168	13,500	99	0.034	0.148
High Pressure Sodium	TEMPO 1-2 SWF230 1xSON-TPP150W	169	17,500	120	0.028	0.123
Iridium (Induction)	IRIDIUM SGS253 FG 1xCDM-T150W_830	168	14,000	180	0.019	0.082
High Pressure Sodium	OPTIFLOOD MVP506 1xSON-TPP150W	169	17,500	197	0.017	0.075
Ceramic Metal Halide	OPTIFLOOD MVP506 1xCPO-TW140W_728 HF OC	154	16,500	192	0.016	0.070

Parking Garage Energy

Note: Parking garage alternatives modeled after a local CTG project in Los Angeles and are based on the actual design (shown below).

Model Garage Description	Total Cars	Title 24 2005 LPD (W/SF)	Design LPD	Exhaust Fan @ Full (kW)	SF/Car	Operating Hours
204,115	592	0.4	0.15	78.78	345	8760

Street and Path Lighting Alternatives: Secondary Road Lighting

Brand	Type	Power (W)	Lumens	Spacing (ft)	W/ ft	Power (W)	Energy (kWh)
ABS	HPS	189	16000	126	1.50	10,929	47,869
US Lighting	Induction	100	8000	89	1.12	8,187	35,857
Philips	High Quality HPS	168	13500	223	0.75	5,489	24,042
Philips	Ceramic MH	154	16500	241	0.64	4,656	20,392
Philips	Low Watt CMH	66	6800	140	0.47	3,435	15,045

*Luminaires mounted at 30 ft.

Street and Path Lighting Alternatives: Road Lighting

Brand	Type	Power (W)	Lumens	Spacing (ft)	W/ ft	Power (W)	Energy (kWh)
ABS	HPS	189	16000	92	2.05	23,332	102,194
US Lighting	Induction	100	8000	46	2.17	24,690	108,142
Philips	Ceramic MH	154	16500	165	0.93	10,600	46,429
Philips	High Quality HPS	168	13500	131	1.28	14,565	63,795
Philips	Low Watt CMH	66	6800	68	0.97	11,023	48,282

*Luminaires mounted at 40 ft.

Paseo Path (no alternatives analyzed)

Length	Width	Area	W/SF	Hours/Year	kWh/SF
2128	30	63840	0.38[12]	4380	1.6644

[12] Source: California Energy Commission California Lighting Baseline Database (2003)
http://www.energy.ca.gov/2003publications/CEC-500-2003-082/CEC-500-2003-082-A-33.PDF

Pools and Spas

Assumptions	
# of Pools	12
Pool Area (SF)	1000
# of Spas	12
Spa Area (SF)	113.04

Pool Assumptions

area	1,000
perimeter	130
depth	4.0
volume	29,920
Pool Temp setpoint	80
Temp Deadband	2
Indoor or outdoor	out
if indoor, room temp setpoint	70
if indoor, room humidity setpoint	50%
Pump Motor rated Power (HP)	5
Avg pump % load	75%
Pump Operating Power (kW)	2.80

Spa Assumptions

area	100
perimeter	40
depth	3.0
volume	2,244
Pool Temp setpoint	110
Temp Deadband	5
Indoor or outdoor	out
if indoor, room temp setpoint	70
if indoor, room humidity setpoint	50%
Pump Motor rated Power (HP)	5
Avg pump % load	75%
Pump Operating Power (kW)	2.80

Solar Thermal Collector Assumptions for the Pools and Spas

Type	Glazed Flat Plate
Manufacturer	Radco
Model	412C-HP
Description	glazed
Collector Location	Roof
Collector size	4x10
Collector Area	40
# collectors	5
Total collector are	200
% of pool area	20%
Tilt	23°
Azimuth	0°

Pool Energy	Load/Pool (therms)
Baseline	8641
Covered	6009
Low Setpoint	4815
Solar (20% Pool Area)	3831
Solar (40% Pool Area)	3036

Spa Energy	Load/spa (therms)
No Cover	4052
Covered	3160
Solar w/Cover	3001

Existing Building and Non-Residential Building Energy Consumption

Because the project includes the demolition of existing non-residential buildings and addition of new non-residential buildings, energy use was quantified for existing and new structures to determine the project impact. Because of the current electrical and natural gas metering structure on the site, historical energy use data are not available for each existing building, only for the entire site. Therefore, a methodology was needed to calculate the energy use from each building in accordance with the building's function. To assess the consumption of existing buildings for load planning purposes, DEER 2005 prototype models were used to calculate emissions for all non-residential buildings. The DEER models are published on behalf of the California Public Utilities Commission and provide standardized, prototypical models to represent the entire California building stock.

From the California Energy Commission Website[13]:

> "The **Database for Energy Efficient Resources** (DEER) is a California Energy Commission and California Public Utilities Commission (CPUC) sponsored database designed to provide well-documented estimates of energy and peak demand savings values, measure costs, and effective useful life (EUL) all with one data source. The users of the data are intended to be program planners, regulatory reviewers and planners, utility and regulatory forecasters, and consultants supporting utility and regulatory research and evaluation efforts. DEER has been has been designated by the CPUC as its source for deemed and impact costs for program planning."

DEER models provide more accurate representation of existing building energy use, particularly because prototype models have been developed for buildings by vintage (age), allowing better alignment with actual building characteristics and therefore better prediction of energy use. DEER models have the added advantage of being designed for new construction use as well, enabling direct and consistent comparison with Title 24 energy code.

Similar to the residential buildings, the electric and natural gas energy use intensity was defined for both the standard (Title 24 compliant) and proposed (above code) case using the DEER prototypes. This energy use intensity was then used to forecast energy consumption for each of the planned buildings using the following equation:

$$\text{Total Building Consumption} = \sum(\text{Building SF})_N * \text{EUI}_N$$

for each building type, where N represents the unique building type.

Existing buildings were modeled as pre-1978 and therefore pre-Title 24 energy code buildings as defined by the DEER prototypes.

[13] http://www.energy.ca.gov/deer/

Project Land Use Assumptions:

Land Use	Existing Development	Demo	Gross New	Net New	Total
Studio (sq. ft.)	1,228,120	185,051	493,000	307,949	1,536,069
Studio Office (sq. ft.)	942,545	107,674	545,000	437,326	1,379,871
Office (sq. ft.)	463,430	54,594	550,000	495,406	958,836
Entertainment (sq. ft.)	775,132	149,345	295,000	145,655	920,787
Entertainment Retail (sq. ft.)	656,144	30,784	70,000	39,216	695,360
Amphitheatre (sq. ft.)	110,600	110,600	60,000	(50,600)	60,000
Hotel (sq. ft.)	-	-	450,000	450,000	450,000
Neighborhood Retail and Community-Serving Commercial (sq. ft.)	-	-	180,000	180,000	180,000
Residential (units)	-	-	2,937	2,937	2,937
Total Commercial (sq. ft.)	4,175,971	638,048	2,643,000	2,004,952	6,180,923
Total Residential (units)			2,937	2,937	2,937

Because the DEER prototype models were designed to represent the entire building stock of California, a number of building uses are available for analysis. Prototype building descriptions for all available DEER models are shown below.

Building Types	Floor Area	# of Floors	# of Bldgs	Bldg Aspect Ratio	Floor-to-Floor Height	Floor-to-Ceiling Height	Perimeter Zone Depth	Window-Wall Ratio
Assembly	34,000	1	1	1	15	12	n/a	19%
Education - Primary School	50,000	1	2	2.	12	9	30	18%
Education - Secondary School	150,000	2	5	2.	15	9	42	19%

Education - Community College	300,000	3	2	4.	18	9	42	24%
Education - University	1,000,000	4	6	1.	14	10	30	18%
Grocery	50,000	1	1	1	25	25	n/a	7%
Health/Medical - Hospital	250,000	3	1	1.5	13	10	n/a	11%
Health/Medical - Nursing Home	60,000	2	1	10.3	12	10	20	20%
Lodging - Hotel (Public Areas)	19,200	1	1	1	12	10	25	20%
Lodging - Hotel (Guest Rooms)	180,800	11	1	5.7	9	9	21	24%
Lodging - Motel	30,000	2	1	5.1	9	9	21	41%
Manufacturing - Bio/Tech	200,000	2	1	6.	15	9	15	12%
Manufacturing - Light Industrial	100,000	1	1	1	35	35	n/a	1%
Office - Large	175,000	10	1	1.5	12	9	15	33%
Office - Small	10,000	2	1	1.5	12	9	15	33%
Restaurant - Sit-Down	4,000	1	1	1	13	10	n/a	11%
Restaurant - Fast-Food	2,000	1	1	1	13	10	n/a	25%
Retail - 3-Story Large	120,000	3	1	1	21	15	n/a	2%
Retail - Single-Story Large	130,000	1	1	1	21	20.5	25	3%
Retail - Small	8,000	1	1	1	10	12	n/a	25%
Storage - Conditioned	500,000	1	1	1	48	48	n/a	1%
Storage - Unconditioned	500,000	1	1	1	48	48	n/a	1%

Warehouse - Refrigerated	100,000	1	1	1.6	32	32	n/a	0%

Because there is not a one-to-one correlation with DEER building types and project building functions, project building types were correlated to DEER models to best represent the characteristics and use of the space, as shown below.

Land Use Correlations with DEER Prototypes

Project Building Type	**DEER Model Prototype**
Amphitheatre	Assembly
Hotel	Hotel
Entertainment	Manufacturing Light Industrial
Entertainment Retail	Small Retail
Office	Large Office
Studio	Conditioned Storage
Studio Office	Small Office

The Entertainment buildings were represented by manufacturing Light Industrial due to the highly variable process energy use associate with varied entertainment facilities. Studio uses were represented by conditioned storage because of the highly variable occupancy and use, which is primarily manifested by process loads. The resulting energy use intensities for both existing and new structures are shown below.

DEER Prototype Energy Use Intensities for Climate Zone 9 (LA)

	DEER kWh/SF			DEER Therm/SF		
Land Use Category	**Pre 1978**	**Title 24 2005**	**Title 24 + 15%**	**Pre 1978**	**Title 24 2005**	**Title 24 + 15%**
Amphitheatre	29.33	20.29	17.13	0.39	0.41	0.40
Entertainment	8.00	7.02	6.43	0.04	0.04	0.03
Entertainment Retail	19.48	11.98	10.18	0.04	0.05	0.03
Office	31.38	13.63	11.58	0.73	0.12	0.06
Studio	5.13	3.72	3.30	0.03	0.02	0.11
Studio Office	20.48	12.32	10.58	0.03	0.03	0.02
Hotel	10.84	10.84	9.21	0.47	0.47	0.03

Using this methodology, building energy use can be separated from process energy use using current energy use data from the existing project site. Based on this analysis, approximately 48% of energy use is currently building energy use, while 52% is process loads.

End Use Category	**Electricity Consumption (kWh)**
Calculated Existing Site Building Electricity Use (from DEER models)	62,242,782
Total Existing Site Electricity Use from Utility Bills	127,177,271
Calculated Current Process Loads	64,934,489

DEER models were used to estimate new building energy consumption using the factors shown above. In order to conservatively estimate the growth in emissions due to process loads, the calculated current process loads were grown by 33%, representing the growth in total square footage from to the project, resulting in additional project consumption of 21.42 GWh of electricity.

For further information on building energy modeling, please refer to the Building Energy Simulation Model Package at the end of this appendix.

WATER

The following water use calculations are based on information provided in the "Utilities – Water" EIR section. Emissions associated with water usage have been calculated and reported as Scope 3 emissions in each of the three inventories throughout the Technical Report. Water-related emissions have been combined with transportation and solid waste emissions in the Existing Conditions inventory. In the BAU and "As Proposed" Project Scenarios, water-related emissions are reported as Scope 3 emissions as follows: (1) annualized construction-related emissions; and (2) in the operational emissions along with construction and solid waste. Please see the Construction section of the Assumptions Appendix for water usage associated with construction activities.

Operational water calculated in the "Development Total" is assumed for the following uses: 60% domestic, potable water and 40% other building, potable water.[14] Water calculated in the "Irrigation Total" is assumed to be used for irrigation throughout the Project.

The "As Proposed" Project scenario assumes a 20% reduction from domestic, potable water (60% of "Development Total") based on the project design features included in the "Utilities – Water" EIR section. The fixtures specified result in a 20% reduction from typical building water use as show in "Typical Building Water Conservation Measures" shown below.

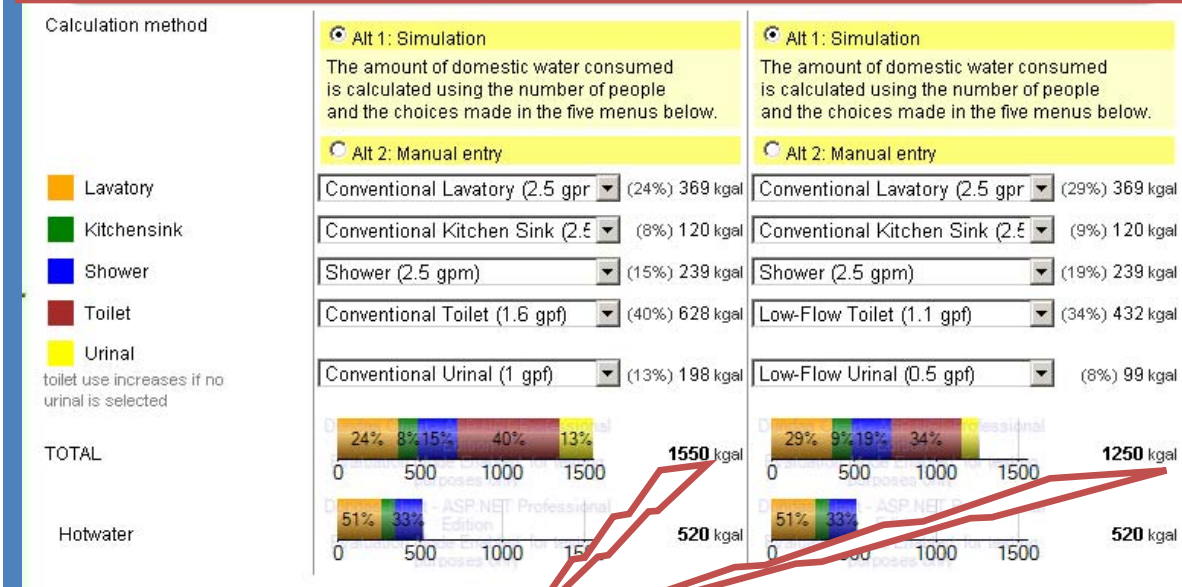
Land Use Category	Net Daily Water Consumption[15] (gallons per day)	BAU (Gal/year)	"As Proposed" Project (Gal/year)
Studio	24,636	8,992,140	7,913,083
Studio office	77,818	28,403,570	24,995,142
Entertainment	26,218	9,569,570	8,421,222
Entertainment retail	16,000	5,840,000	5,139,200
Office	89,173	32,548,145	28,642,368
Amphitheatre[16]	(12,084)		(4,410,660)
Hotel	130,000	47,450,000	41,756,000
Child care center	400	146,000	128,480

[14] Domestic water breakdown based on EPA Water Sense Data (http://www.epa.gov/watersense/docs/ws_indoor508.pdf.)
[15] Based on information provided in the "Utilities – Water" Section of the EIR
[16] Total Potable Water calculated from Net Daily Water Consumption includes a reduction in potable water use from the demolition of the amphitheater. This water reduction is included in the "As Proposed" Project scenario to accurately reflect "As Proposed" Project conditions.

Residential	469,920	171,520,800	150,938,304
Retail	46,920	17,125,800	15,070,704
Community facilities	26,520	9,679,800	8,518,224
Development Total	895,522	326,865,530	287,112,066
Highly irrigated	233,142	85,096,830	85,096,830
Modestly irrigated	-13,649	-4,981,885	-4,981,885
Natural irrigation	-	-	
Irrigation Total	219,493	80,114,945	80,114,945
Total Potable Water (rounded to nearest gallon)	*1,115,015*	*406,980,475*	367,227,011
Reclaimed Water	*118,530*	*43,263,450*	*43,263,450*
Total "As Proposed" Project Water	*1,233,582*	*450,243,925*	410,490,461

Existing Conditions	Gallons Per Day	Gallons Per Year	Embodied Electricity kWh/gal	Electricity MWhr	Emission Factor (MTCE/MWh)	Existing Carbon Emissions (MTCE)
Potable	1,070,000	390,550,000	0.0085	3,319.675	0.33	1,095.02
Reclaimed	118,530	43,263,450	0.0026	112.485	0.33	37.104
Total						**1,132.13**

Typical Building Water Conservation Measures (Source: USGBC & CTG Energetics)



300,000 gallons saved
(1,550,000 – 1,250,000 Gallons)

20% Saved

SOLID WASTE

The following BAU and "As Proposed" Project solid waste information have been extracted from the "Utilities – Solid Waste" section of the EIR. Existing Conditions information has been provided by NBCU.

Existing Conditions Location[17]	Tons of Solid Waste Landfilled	Tons of CO2e
Entertainment District	2,566	597
Studio, Business, Back Lot District	3,093	719
Total	**5,659**	**1,316**

			Business-as-Usual – 49% Diversion			
Land Use Type	**Measured Unit**	**Total Measure Unit**	**Total Solid Waste Generated (tons/day)**	**Total Solid Waste Diverted (tons/day)**	**Net Waste to Landfill (tons/day)**	**Tons of CO2e**
Studio	Per Employee	955	2.41	1.18	1.23	104.23
Studio Office	Per Employee	1158	1.17	0.58	0.60	50.83
Office	Per Employee	1328	1.35	0.66	0.69	58.29
Multi-Family Residences	Per DU	2937	7.48	3.67	3.82	324.02
Neighborhood-Serving Retail	Per Employee	345	1.64	0.80	0.84	71.13
Community Facilities	Per Employee	195	0.49	0.24	0.25	21.28
Entertainment	Per Employee	560	2.67	1.31	1.36	115.46
Entertainment Retail	Per Employee	193	0.92	0.45	0.47	39.79
Hotel	Per Employee	423	3.51	1.72	1.79	152.04
Amphitheater	Per Seat	3021	0.00	0.00	0.00	0.00
Child Care Facilities	Per Employee	20	0.03	0.01	0.01	1.19
Total						**938**

[17] Based on information provided in the "Utilities – Solid Waste" Section of the EIR

			"As Proposed" – 65% Diversion			
Land Use Type	**Measured Unit**	**Total Measure Unit**	**Total Solid Waste Generated (tons/day)**	**Total Solid Waste Diverted (tons/day)**	**Net Waste to Landfill (tons/day)**	**Tons of CO2e**
Studio	Per Employee	955	2.41	1.56	0.84	71.53
Studio Office	Per Employee	1158	1.17	0.76	0.41	34.88
Office	Per Employee	1328	1.35	0.88	0.47	40.00
Multi-Family Residences	Per DU	2937	7.48	4.86	2.62	222.37
Neighborhood-Serving Retail	Per Employee	345	1.64	1.07	0.57	48.81
Community Facilities	Per Employee	195	0.49	0.32	0.17	14.61
Entertainment	Per Employee	560	2.67	1.73	0.93	79.24
Entertainment Retail	Per Employee	193	0.92	0.60	0.32	27.31
Hotel	Per Employee	423	3.51	2.28	1.23	104.34
Amphitheater	Per Seat	3021	0.00	0.00	0.00	0.00
Child Care Facilities	Per Employee	20	0.03	0.02	0.01	0.81
Total						**644**

CONSTRUCTION

The following water use calculations are based on information from the "Utilities – Water" EIR section. Water usage for fugitive dust control during construction has been calculated and reported as a Scope 3 emission in both the business-as-usual and "As Proposed" Project scenario. Construction emissions as reported in these scenarios includes

Table H.4-3. Water Usage for Fugitive Dust Control During Mixed-Use Residential Area and Studio, Entertainment and Business Area Construction

Construction[1]	Water Usage Control Dirt/Debris Handle (gal)	Water Usage Control Unpaved Road (gal)	Total Water Usage (gal)
Mixed-Use Residential Area Horizontal Construction Schedule[2]	87,475,168	4,437,962	91,913,130
Mixed-Use Residential Area Vertical Construction Schedule[3]	13,895,700	--	13,895,700
Studio, Entertainment, Business Area Construction	12,260,316	3,130,224	15,390,540
Total Water Usage For Fugitive Dust Control During All Construction			**121,199,370**

Notes for Table H.4-3:

1) The water usage estimates are based on the Mixed-Use Residential Area 1-phase construction schedule and water usage estimates provided by the Moote Group. For dirt and debris handling, Moote Group estimated that up to 15 gallons of water per cubic yard of dirt/debris handled is required. For water usage on unpaved roads, the Moote Group assumed that 0.5 L/m2 would be required and a minimum of three applications per day for non-grading activities and six applications per day at 0.5 L/m2 would be applied during grading activities.
2) Water usage estimates for the construction of the Mixed-Use Residential Area are based on information provided by the Moote Group. Moote calculated the expected water usage per construction activity and amount of water to be applied to haul roads for 1-phase horizontal construction.
3) Water usage during the Mixed-Use Residential Area vertical construction are based on the water usage information provided by Moote. It is assumed that haul roads will be paved during the Mixed-Use Residential Area Vertical Construction Schedule. The calculations are based on the 1-phase construction schedule.

Total construction-related CO_2 Emissions presented below are based on those provided by Environ and disclosed in the Air Quality section of the Project EIR.

Table H.4-1A. Total CO_2e Construction Emissions in the Studio, Entertainment, and Business Areas

Construction Zones	Onsite	Offsite	Total
	Metric tonnes CO_2e		
A	1,651	3,660	5,311
B	2,450	5,923	8,373
C	1,615	3,542	5,157
D	3,506	7,944	11,450
E	2,345	4,988	7,333
F	3,147	7,065	10,212
G	1,432	3,300	4,732
Total CO_2e Construction Emissions from Studio, Entertainment, and Business Areas	**16,148**	**36,422**	**52,570**

Notes for Table H.4-1A:

1) The CO2e construction emissions are shown for each construction zone consistent with the approach used by the Air Technical Report. The CO2e emissions are reported by construction zone to parallel the estimates for criteria pollutant emissions. However, since climate change is a global issue, the maximum total emissions from all construction zones from the Studio, Entertainment, and Business Areas is used for the climate change analysis.
2) The CO2e construction emissions are based on the detailed calculations as included in Appendix A and H of the Air Technical Report. For the purpose of evaluating emissions of criteria pollutants, the Studio, Entertainment, and Business Areas are represented by seven "construction zones" that establish the construction parameters of those areas. For more information see the Air Quality section of the EIR.
3) The CO2e construction emissions include onsite and offsite mobile sources (e.g., construction equipment, worker commutes, vendor trips, haul trips, etc.) and include contributions of CH4 and N2O emissions for gasoline based engines (USEPA, Emission Facts; Greenhouse Gas Emissions from a Typical Passenger Vehicle, Office of Transportation and Air Quality [online]. Available: http://www.epa.gov/otaq/climate/420f05004.pdf [accessed 03 Oct. 2009]). The contribution of CH4 and N2O for diesel engines is likely small, less than 1%, and therefore it is assumed CO2 is equal to CO2e (California Climate Action Registry (CCAR). 2009. General Reporting Protocol. Version 3.1.).

Table H.4-1B. Total CO_2e Construction Emissions for Mixed-Use Residential Area

Year	1-phase (metric tonnes/year)			3-phase (metric tonnes/year)		
	Onsite	Offsite	Total	Onsite	Offsite	Total
2010	1,768	3,710	5,478	2,639	5,974	8,614
2011	1,478	2,638	4,116	2,987	6,920	9,907
2012	3,251	8,951	12,202	4,178	11,841	16,019
2013	7,776	15,013	22,790	7,424	28,352	35,776
2014	10,771	27,590	38,361	4,165	14,564	18,729
2015	6,914	21,821	28,734	5,707	20,412	26,119
2016	1,625	10,675	12,300	1,616	10,706	12,321
2017	6	67	73	No Construction		
Total CO_2e Construction Emissions for the Mixed-Use Residential Area (metric tonnes)	**33,589**	**90,465**	**124,054**	**28,715**	**98,769**	**127,485**

Total Project Construction	**49,737**	**126,887**	**176,624**	**44,864**	**135,191**	**180,055**
Total Project Construction	**180,055**	**Project Life Time (Years)**	**30**	**Annual Construction**	**6,002**	**MTCE/Year**

Notes for Table H.4-1B:

1) The CO2e construction emissions are shown for the possible construction schedules (1-phase and 3-phase) consistent with the Air Technical Report. The CO2e emissions are reported by year to parallel the estimates for criteria pollutant emissions. Since climate change is a global issue, the maximum total emissions of either phase can be used to represent the Mixed-Use Residential Area CO2e construction emissions. The 3-phase CO2e emissions are used for the climate change analysis because the emissions are greater than the 1-phase emissions.
2) The CO2e construction emission estimates are based on the detailed calculations as included in Appendix A and H of the Air Technical Report. For the purposes of evaluating air quality criteria pollutant emissions, construction of the Mixed-Use Residential Area is assumed to occur under one of two grading scenarios: a continuous "1-phase" scenario, and a staged "3-phase" scenario. For more information refer to the Air Quality Section of the EIR.
3) The CO2e construction emissions include onsite and offsite mobile sources (e.g., construction equipment, worker commutes, vendor trips, haul trips, etc.) and include contributions of CH4 and N2O emissions for gasoline based engines (USEPA, Emission Facts; Greenhouse Gas Emissions from a Typical Passenger Vehicle, Office of Transportation and Air Quality [online]. Available: http://www.epa.gov/otaq/climate/420f05004.pdf [accessed 03 Oct. 2009]). The contribution of CH4 and N2O for diesel engines is likely small, less than 1%, and therefore it is assumed CO2 is equal to CO2e (California Climate Action Registry (CCAR). 2009. General Reporting Protocol. Version 3.1.).

NET CARBON BALANCE IN TREES

Data Sources

Construction of the project will require some trees on the site to be removed. As the project is situated both in the City of Los Angeles and Los Angeles County, tree removal in each jurisdiction is regulated by independent ordinances and statutes. These are covered in detail in the "Universal Evolution Plan Tree Report" compiled by Dudek. To calculate the net carbon balance for the removal as well as the regulated replanting of trees, the main additional data source used was the CUFR Tree Carbon Calculator (CTCC) developed by the Center for Urban Forest Research at the US Forest Service[18].

Methodology

The CTCC uses tree diameter at breast height (dbh) as a primary input to determine that tree type's stored carbon content. This number is directly related to a tree's age. For each studied tree type from the Dudek Report, the weighted average of dbh was calculated based on the number of trees in each dbh range. Since the dbh corresponds to a specific age, unique for each tree type, the average tree age per tree population was deduced. Then each tree population was run in CTCC at full maturity (stabilized growth and mortality rates) and the average stored CO_2 in kg per tree was generated.

At Full Age (Metric Tons of CO2 per Tree)		
Coast Live Oak	So Cal Black Walnut	California Sycamore
36.298	2.828	8.755

Finally, each tree population was analyzed and projected forward by type, corresponding growth, and mortality rates from its current age to 2060[19]. By doing so it was possible to see how close each population is to reaching full maturity and hence it's carbon content.

The equation becomes:

Carbon Content in Tree Population (MTCE) = Carbon Content at full Maturity (MTCE) * Proximity to Full Maturation in 2060 (%) * (1 – Mortality Rate (%))

The sum of the carbon content of all tree populations for the proposed project scenario at 2060 was then subtracted by the sum of the carbon content of the existing scenario at 2060. This showed that there was a net loss of carbon sequestration of approximately 342 Metric Tons of CO2 per year. This stems from the newly planted trees which substantially bring down the average population age, and hence, it's size.

[18] www.fs.fed.us/ccrc/topics/urban-forests
[19] The year 2060 assumes project build-out in 2030 and a 30 year project performance period

Existing Conditions	Coast Live Oak	So Cal Black Walnut	California Sycamore	Coast Live Oak	Coast Live Oak
Diameter at Breast Height (Dbh)	21.2	7.9	8.8	12.0	14.9
Number of Trees in Population	317	75	34	76	201
Current Age of Trees (Years)	47	15	17	25	31
Age at 2060 (years)	100	68	70	78	84
Current Cumulative Mortality (%)	0.61	0.66	0.65	0.64	0.63
2060 Cumulative Mortality (%)	0.5	0.6	0.6	0.59	0.59
Actual Reduction between 2030-2060	18%	9%	8%	8%	6%
Growth (% to Full Population Maturity)	100%	73%	75%	81%	85%
Sequestered Metric Tons CO2/Tree	29.8	1.9	6.1	27.1	28.9
Sequestered Metric Tons CO2/Population	9,432	141	206	2,060	5,808
Sub Total: City of LA Ordinance	16,855				
Sub Total: State Oak Woodlands Statute	2,060				
Sub Total: LA County Oak Tree Ordinance	5,808				
Total Metric Tons CO2	***24,723***				
Project					
Assumed Replacement Factor	2	2	2	2	2
Resulting Number of Trees in Population	634	150	68	152	402
Average Population Age at 2060 (Years)	30	30	30	30	30
Year Planted	2025	2025	2025	2025	2025
Years of Supervised Maintenance	5	5	5	7	7
Cumulative Mortality After Maintenance Period (%)	72%	72%	72%	70%	70%
2060 Cumulative Mortality (%)	63%	63%	63%	63%	63%
Actual Reduction between 2030-2060 (%)	13%	13%	13%	10%	10%
Growth (% to Full Population Maturity)	37%	37%	37%	37%	37%
Sequestered Metric Tons CO2/Tree	11.75	0.92	2.83	12.09	12.09
Sequestered Metric Tons CO2/Population	7,450	137	193	1,837	4,859
Sub Total: City of LA Ordinance	7,781				
Sub Total: State Oak Woodlands Statute	1,837				
Sub Total: LA County Oak Tree Ordinance	4,859				
Total Metric Tons CO2	***14,770***				

Assumptions

- The analysis was made for the period 2030-2060
- The CTCC has not currently run all tree types in each climate and recommend using the nearest climate zone available so for the Coast Live Oak, Inland Empire was used.

The project is committing to maintaining and supervising tree populations regulated by the City of Los Angeles Tree Ordinance for five years and seven years for trees regulated by the County of Los Angeles. The project is also committing to replanting any trees that might die during this period of supervised maintenance[20]. Tree mortality rates are assumed to be 0 for the first five or seven years accordingly.

[20] Dudek Report Universal Vision Plan Tree Report – 2010

TRANSPORTATION

The following transportation calculations are based on information provided by Environ in conjunction with its air quality calculations. Emissions have been calculated for Existing Conditions, as well as the Business-As-Usual and "As Proposed" Project Scenarios.

Table H.5. Existing Conditions (Year 2006) GHG Emissions
NBC Universal
Evolution Plan

Vehicle Class	Land Use		Total Number of Trips completed by All (Group A + Group B) Vehicles		Trip Characteristics					Number of Trips and VMT completed by Group X of Vehicles		Emission Factors		Annual Emissions			
	per Project Transprotation Study	Categories for URBEMIS[1]	Total Daily Trips[2]	Total Annual Trips[3]	Trip Type	% Trip Type[4]	Trip Purpose[5]	% Trip Purpose[5]	Trip Length [by Trip Purpose][5] (miles)	Annual Trips	Annual VMT[6] (miles)	Startup[7] (g/start)	Running[8] (g/mile)	Annual Startup CO_2 Emissions (tonnes)	Annual Running CO_2 Emissions (tonnes)	Total Annual CO_2 Emissions (tonnes)	Total Annual CO_2e Emissions[9] (tonnes)
Group A Passenger Vehicles (Vehicles <= 8,500 lbs LDA, LDT1, LDT2, MDV) Pavley Standards Applicable[10]	Mixed-Use Residential Area - Studio/Production	Mixed-Use Residential Area - Studio/Production	1 077	393 105	Primary	75.0%	Commercial-Based Commute	35.0%	13.3	137,587	1,464,611	241.3	396.8	33	581	614	647
					Diverted	20.0%	Commercial-Based Non-Work	0.0%	7.4	0	0			0	0	0	0
					Passby	5.0%	Commercial-Based Customer	47.5%	8.9	186 725	1 330 415			45	528	573	603
	Entertainment Area	Entertainment Center	26 536	9 685 640	Primary	90.0%	Commercial-Based Commute	2.0%	13.3	193,713	2,383,152			47	946	992	1,045
					Diverted	10.0%	Commercial-Based Non-Work	0.0%	7.4	0	0			0	0	0	0
					Passby	0.0%	Commercial-Based Customer	97.0%	8.9	9 395 071	77 344 920			2 267	30 694	32 961	34 696
	Business Area	General Office Building	9 735	3 553 275	Primary	75.0%	Commercial-Based Commute	35.0%	13.3	1 243 646	13 238 614			300	5 254	5 554	5 846
					Diverted	20.0%	Commercial-Based Non-Work	0.0%	7.4	0	0			0	0	0	0
					Passby	5.0%	Commercial-Based Customer	47.5%	8.9	1 687 806	12 025 615			407	4 772	5 180	5 452
	Studio Area	Studio/Production Support	7 535	2 750 275	Primary	75.0%	Commercial-Based Commute	35.0%	13.3	962,596	10,246,837			232	4,066	4,299	4,525
					Diverted	20.0%	Commercial-Based Non-Work	0.0%	7.4	0	0			0	0	0	0
					Passby	5.0%	Commercial-Based Customer	47.5%	8.9	1,306,381	9,307,962			315	3,694	4,009	4,220
	All Land Uses		*44,883*	*16,382,295*	***	***	**Subtotal for Group A Vehicles**			**15,113,524**	**127,342,126**	**241.28**	**396.85**	**3,647**	**50,536**	**54,182**	**57,034**
Group B Commercial Vehicles (Vehicles > 8,500 lbs LHDT1, LHDT2, MHDT, HHDT) Pavley Standards Not Applicable; Heavy-Duty Standards Applicable for HHDT and some MHDT[11]	Mixed-Use Residential Area - Studio/Production	Mixed-Use Residential Area - Studio/Production	1 077	393 105	Primary	75.0%	Commercial-Based Commute	0.0%	13.3	0	0	242.9	1176.7	0	0	0	0
					Diverted	20.0%	Commercial-Based Non-Work	17.5%	7.4	68,793	407,601			17	480	496	522
					Passby	5.0%	Commercial-Based Customer	0.0%	8.9	0	0			0	0	0	0
	Entertainment Area	Entertainment Center	26 536	9 685 640	Primary	90.0%	Commercial-Based Commute	0.0%	13.3	0	0			0	0	0	0
					Diverted	10.0%	Commercial-Based Non-Work	1.0%	7.4	96,856	662,982			24	780	804	846
					Passby	0.0%	Commercial-Based Customer	0.0%	8.9	0	0			0	0	0	0
	Business Area	General Office Building	9 735	3 553 275	Primary	75.0%	Commercial-Based Commute	0.0%	13.3	0	0			0	0	0	0
					Diverted	20.0%	Commercial-Based Non-Work	17.5%	7.4	621,823	3,684,302			151	4,335	4,486	4,723
					Passby	5.0%	Commercial-Based Customer	0.0%	8.9	0	0			0	0	0	0
	Studio Area	Studio/Production Support	7 535	2 750 275	Primary	75.0%	Commercial-Based Commute	0.0%	13.3	0	0			0	0	0	0
					Diverted	20.0%	Commercial-Based Non-Work	17.5%	7.4	481,298	2,851,691			117	3,356	3,473	3,655
					Passby	5.0%	Commercial-Based Customer	0.0%	8.9	0	0			0	0	0	0
	All Land Uses		*44,883*	*16,382,295*	***	***	**Subtotal for Group B Vehicles**			**1,268,771**	**7,606,576**	**242.9**	**1176.7**	**308**	**8,951**	**9,259**	**9,746**
Total for All Vehicles			**44,883**	**16,382,295**	***	***	**Total for All Vehicles**			**16,382,295**	**134,948,702**	***	***	**3,955**	**59,486**	**63,441**	**66,780**

Abbreviations:

CO_2 - carbon dioxide

CO_2e - carbon dioxide equivalent

TDM - Transportation Demand Management Program

URBEMIS - URBan EMISsions modeling software

VMT - vehicle miles traveled

Vehicle Classes (from EMFAC User Guide)

lbs - pounds

Abbreviations cont'd:

Vehicle Classes (from EMFAC User Guide)

LDA - Light Duty Auto (Passenger Cars)

LDT1, LDT2 - Light-Duty Trucks (0-3,750 lbs; 3,751-5,750 lbs)

MDV - Medium Duty Trucks (5,751-8,500 lbs)

LHDT1, LHDT2 - Light-Heavy-Duty Trucks (8,501-10,000 lbs; 10,001-14,000 lbs)

MHDT - Medium-Heavy-Duty Trucks (14,001-33,000 lbs)

HHDT - Heavy-Heavy-Duty Trucks (33,001-60,000 lbs)

Notes:

1. URBEMIS does not contain default settings for "Entertainment Center" and "Studio/Production Support"; "Entertainment Center" was based on URBEMIS default "general land use" settings, and "Studio/Production Support" was based on General Office Building settings.

2. Daily number of trips are based on information provided in the NBC Universal Evolution Plan. Trips are assumed to be one-way.

3. Annual number of trips = Daily number of trips*365

4. % trip type data are URBEMIS defaults for each land use type.

5. Trip purpose categories and the associated trip lengths are URBEMIS defaults for each land use type. % trip purpose data are based on URBEMIS defaults and the following assumption made by ENVIRON all commercial-based non-work trips are performed by Group B vehicles only.

6. VMT was adjusted to account for diverted and pass-by trips using the following default information from URBEMIS diverted trip length is assumed to be 25% of primary trip length. Pass-by trip length is assumed to be 0.1 miles.

7. Startup emission factors are taken from EMFAC. ENVIRON applied the conservative assumption of 720 minutes (12 hours) between startups. For Group B vehicles, the EMFAC startup emission factors are weighted by truck type based on an estimate of truck activity at the site, consistent with the Air Quality analysis.

8. Running emission factors are taken from EMFAC at 30 mph (URBEMIS default). For Group B vehicles, the EMFAC running emission factors are weighted by truck type based on an estimate of truck activity at the site, consistent with the Air Quality analysis.

9. $CO_2e=CO_2/0.95$ The United States Environmental Protection Agency (USEPA) recommends assuming that CH, N_2O, and HFCs are 5% of emissions on a CO_2e basis.

10. AB 1493 ("the Pavley Standard") refers to the reduction of GHG emissions from noncommercial passenger vehicles and light and medium-duty trucks of model year 2009 and thereafter, as required by the state of California (see ARB 2008a). The regulated vehicle classes are shown here for comparison purp only; a reduction in GHG emissions is not applied in this calculation scenario.

11. ARB adopted a regulation to reduce greenhouse gas emissions by improving the fuel efficiency of heavy-duty trucks (see ARB 2008b). The regulated vehicle classes are shown here for comparison purposes only; a reduction in GHG emissions is not applied in this calculation scenario.

Sources:

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Table H.6.-1A. CO_2 Emissions in Project Year 2020 (all)
NBC Universal
Evolution Plan

Vehicle Class	Land Use		Total Number of Trips completed by All (Group A Group B) Vehicles		Trip Characteristics					Number of Trips and VMT completed by Group X of Vehicles		Emission Factors		Annual Emissions			
	per Project Transportation Study	Categories for URBEMIS[1]	Total Daily Trips[2]	Total Annual Trips[3]	Trip Type	% Trip Type[4]	Trip Purpose[5]	% Trip Purpose[5]	Trip Length [by Trip Purpose][5] (miles)	Annual Trips	Annual VMT[6] (miles)	Startup[7] (g/start)	Running[8] (g/mile)	Annual Startup CO_2 Emissions (tonnes)	Annual Running CO_2 Emissions (tonnes)	Total Annual CO_2 Emissions (tonnes)	Total Annual CO_2e Emissions[9] (tonnes)
Group A Passenger Vehicles (Vehicles < 8,500 lbs: LDA, LDT1, LDT2, MDV) Pavley Standards Applicable[10]	Mixed-Use Residential Area	Single-Family Housing	17 796	6 495 401	Primary	85.0%	Home-Based Work	32.9%	12.7	2,136,987	23,757,953	237.0	389.2	507	9,246	9,753	10,266
					Diverted	10.0%	Home-Based Shop	18.0%	7.0	1,169,172	7,167,026			277	2,789	3,066	3,228
					Passby	5.0%	Home-Based Other	49.1%	9.5	3 189 242	26 526 521			756	10 323	11 079	11 663
		Strip Mall	2 669	974 324	Primary	45.0%	Commercial-Based Commute	2.0%	13.3	19,486	142,836			5	56	60	63
					Diverted	40.0%	Commercial-Based Non-Work	0.0%	7.4	0	0			0	0	0	0
					Passby	15.0%	Commercial-Based Customer	97.0%	8.9	945 094	4 640 411			224	1 806	2 030	2 137
	Entertainment Area	Entertainment Center	1 723	628 895	Primary	90.0%	Commercial-Based Commute	2.0%	13.3	12 578	154 740			3	60	63	67
					Diverted	10.0%	Commercial-Based Non-Work	0.0%	7.4	0	0			0	0	0	0
					Passby	0.0%	Commercial-Based Customer	97.0%	8.9	610,028	5,022,057			145	1,954	2,099	2,210
		Hotel	4 460	1 627 900	Primary	60.0%	Commercial-Based Commute	5.0%	13.3	81,395	744,663			19	290	309	325
					Diverted	35.0%	Commercial-Based Non-Work	0.0%	7.4	0	0			0	0	0	0
					Passby	5.0%	Commercial-Based Customer	92.5%	8.9	1 505 808	9,221,189			357	3 589	3 946	4 153
	Business Area	General Office Building	6 895	2 516 675	Primary	75.0%	Commercial-Based Commute	35.0%	13.3	880,836	9,376,502			209	3,649	3,858	4,061
					Diverted	20.0%	Commercial-Based Non-Work	0.0%	7.4	0	0			0	0	0	0
					Passby	5.0%	Commercial-Based Customer	47.5%	8.9	1 195 421	8 517 372			283	3 315	3 598	3 787
	Studio Area	Studio/Production Support	2 908	1 061 420	Primary	75.0%	Commercial-Based Commute	35.0%	13.3	371 497	3 954 586			88	1 539	1 627	1 713
					Diverted	20.0%	Commercial-Based Non-Work	0.0%	7.4	0	0			0	0	0	0
					Passby	5.0%	Commercial-Based Customer	47.5%	8.9	504 175	3 592 243			120	1 398	1 518	1 597
	All Land Uses		*36,451*	*13,304,615*	***	***	**Subtotal for Group A Vehicles**			**12,621,719**	**102,818,097**	**237.04**	**389.17**	**2,992**	**40,014**	**43,006**	**45,269**
Group B Commercial Vehicles (Vehicles > 8,500 lbs: LHDT1, LHDT2, MHDT, HHDT) Pavley Standards Not Applicable Heavy-Duty Standards Applicabl for HHDT and some MHDT[11]	Mixed-Use Residential Area	Single-Family Housing	17 796	6 495 401	Primary	85.0%	Home-Based Work	0.0%	12.7	0	0	212.3	1184.8	0	0	0	0
					Diverted	10.0%	Home-Based Shop	0.0%	7.0	0	0			0	0	0	0
					Passby	5.0%	Home-Based Other	0.0%	9.5	0	0			0	0	0	0
		Strip Mall	2 669	974 324	Primary	45.0%	Commercial-Based Commute	0.0%	13.3	0	0			0	0	0	0
					Diverted	40.0%	Commercial-Based Non-Work	1.0%	7.4	9,743	39,801			2	47	49	52
					Passby	15.0%	Commercial-Based Customer	0.0%	8.9	0	0			0	0	0	0
	Entertainment Area	Entertainment Center	1 723	628 895	Primary	90.0%	Commercial-Based Commute	0.0%	13.3	0	0			0	0	0	0
					Diverted	10.0%	Commercial-Based Non-Work	1.0%	7.4	6 289	43 048			1	51	52	55
					Passby	0.0%	Commercial-Based Customer	0.0%	8.9	0	0			0	0	0	0
		Hotel	4 460	1 627 900	Primary	60.0%	Commercial-Based Commute	0.0%	13.3	0	0			0	0	0	0
					Diverted	35.0%	Commercial-Based Non-Work	2.5%	7.4	40,698	207,252			9	246	254	268
					Passby	5.0%	Commercial-Based Customer	0.0%	8.9	0	0			0	0	0	0
	Business Area	General Office Building	6 895	2 516 675	Primary	75.0%	Commercial-Based Commute	0.0%	13.3	0	0			0	0	0	0
					Diverted	20.0%	Commercial-Based Non-Work	17.5%	7.4	440,418	2,609,477			94	3,092	3,185	3,353
					Passby	5.0%	Commercial-Based Customer	0.0%	8.9	0	0			0	0	0	0
	Studio Area	Studio/Production Support	2 908	1 061 420	Primary	75.0%	Commercial-Based Commute	0.0%	13.3	0	0			0	0	0	0
					Diverted	20.0%	Commercial-Based Non-Work	17.5%	7.4	185 749	1 100 560			39	1 304	1 343	1 414
					Passby	5.0%	Commercial-Based Customer	0.0%	8.9	0	0			0	0	0	0
	All Land Uses		*36,451*	*13,304,615*	***	***	**Subtotal for Group B Vehicles**			**682,896**	**4,000,138**	**212.3**	**1184.8**	**145**	**4,739**	**4,884**	**5,141**
Total for All Vehicles			**36,451**	**13,304,615**	***	***	**Total for All Vehicles**			**13,304,615**	**106,818,236**	***	***	**3,137**	**44,753**	**47,890**	**50,411**

Abbreviations:
CO_2 - carbon dioxide
CO_2e - carbon dioxide equivalent
TDM - Transportation Demand Management Program
URBEMIS - URBan EMISsions modeling software
VMT - vehicle miles traveled
Vehicle Classes (from EMFAC User Guide):
lbs - pounds

Abbreviations cont'd:
Vehicle Classes (from EMFAC User Guide):
LDA - Light Duty Auto (Passenger Cars)
LDT1, LDT2 - Light-Duty Trucks (0-3,750 lbs; 3,751-5,750 lbs)
MDV - Medium Duty Trucks (5,751-8,500 lbs)
LHDT1, LHDT2 - Light-Heavy-Duty Trucks (8,501-10,000 lbs; 10,001-14,000 lbs)
MHDT - Medium-Heavy-Duty Trucks (14,001-33,000 lbs)
HHDT - Heavy-Heavy-Duty Trucks (33,001-60,000 lbs)

Notes:
1. URBEMIS does not contain default settings for "Entertainment Center" and "Studio/Production Support"; "Entertainment Center" was based on URBEMIS default "general land use" settings, and "Studio/Production Support" was based on General Office Building settings.
2. Daily number of trips are based on information provided in the NBC Universal Evolution Plan. Trips are assumed to be one-way.
3. Annual number of trips Daily number of trips*365
4. % trip type data are URBEMIS defaults for each land use type.
5. Trip purpose categories and the associated trip lengths are URBEMIS defaults for each land use type. % trip purpose data are based on URBEMIS defaults and the following assumptions made by ENVIRON: a) All home-based trips are performed by Group A vehicles only; b) All commercial-based non-work trips are performed by Group B vehicles only.
6. VMT was adjusted to account for diverted and pass-by trips using the following default information from URBEMIS: diverted trip length is assumed to be 25% of primary trip length. Pass-by trip length is assumed to be 0.1 miles.
7. Startup emission factors are taken from EMFAC. ENVIRON applied the conservative assumption of 720 minutes (12 hours) between startups. For Group B vehicles, the EMFAC startup emission factors are weighted by truck type based on an estimate of truck activity at the site, consistent with the Air Quality analysis.
8. Running emission factors are taken from EMFAC at 30 mph (URBEMIS default). For Group B vehicles, the EMFAC running emission factors are weighted by truck type based on an estimate of truck activity at the site, consistent with the Air Quality analysis.
9. CO_2e CO_2/0.95: The United States Environmental Protection Agency (USEPA) recommends assuming that CH N_2O, and HFCs are 5% of emissions on a CO_2e basis.
10. AB 1493 ("the Pavley Standard") refers to the reduction of GHG emissions from noncommercial passenger vehicles and light and medium-duty trucks of model year 2009 and thereafter, as required by the state of California (see ARB 2008a). The regulated vehicle classes are shown here for comparison purposes only; a reduction in GHG emissions is not applied in this calculation scenario.
11. ARB adopted a regulation to reduce greenhouse gas emissions by improving the fuel efficiency of heavy-duty trucks (see ARB 2008b). The regulated vehicle classes are shown here for comparison purposes only; a reduction in GHG emissions is not applied in this calculation scenario.

Sources:

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Table H.6.-1B. CO_2 Emissions (with TDM) in Project Year 2020 (all)
NBC Universal
Evolution Plan

Vehicle Class	Land Use		Total Number of Trips completed by All (Group A Group B) Vehicles		Trip Characteristics							Number of Trips and VMT completed by Group X of Vehicles		Emission Factors		Annual Emissions			
	per Project Transportation Study	Categories for URBEMIS[1]	Total Daily Trips[2]	Total Annual Trips[3]	Trip Type	% Trip Type[4]	Trip Purpose[5]	% Trip Purpose[5]	Trip Length [by Trip Purpose][5] (miles)	% Trip Reduction due to TDM[6]		Annual Trips	Annual VMT[7] (miles)	Startup[8] (g/start)	Running[9] (g/mile)	Annual Startup CO_2 Emissions (tonnes)	Annual Running CO_2 Emissions (tonnes)	Total Annual CO_2 Emissions (tonnes)	Total Annual CO_2e Emissions[10] (tonnes)
Group A Passenger Vehicles (Vehicles < 8,500 lbs: LDA, LDT1, LDT2, MDV) Pavley Standards Applicable[11]	Mixed-Use Residential Area	Single-Family Housing	17 796	6 495 401	Primary	85.0%	Home-Based Work	32.9%	12.7	21.1%		1 686 083	18 745 025	237.0	389.2	400	7 295	7 695	8 100
					Diverted	10.0%	Home-Based Shop	18.0%	7.0	21.1%		922,477	5,654,783			219	2,201	2,419	2,547
					Passby	5.0%	Home-Based Other	49.1%	9.5	21.1%		2,516,312	20,929,425			596	8,145	8,742	9,202
		Strip Mall	2 669	974 324	Primary	45.0%	Commercial-Based Commute	2.0%	13.3	0.0%		19,486	142,836			5	56	60	63
					Diverted	40.0%	Commercial-Based Non-Worl	0.0%	7.4	0.0%		0	0			0	0	0	0
					Passby	15.0%	Commercial-Based Customer	97.0%	8.9	0.0%		945 094	4 640 411			224	1 806	2 030	2 137
	Entertainment Area	Entertainment Center	1 723	628 895	Primary	90.0%	Commercial-Based Commute	2.0%	13.3	7.7%		11,609	142,825			3	56	58	61
					Diverted	10.0%	Commercial-Based Non-Worl	0.0%	7.4	7.7%		0	0			0	0	0	0
					Passby	0.0%	Commercial-Based Customer	97.0%	8.9	4.0%		585 627	4 821 174			139	1 876	2 015	2 121
		Hotel	4 460	1 627 900	Primary	60.0%	Commercial-Based Commute	5.0%	13.3	7.7%		75 128	687 323			18	267	285	300
					Diverted	35.0%	Commercial-Based Non-Worl	0.0%	7.4	7.7%		0	0			0	0	0	0
					Passby	5.0%	Commercial-Based Customer	92.5%	8.9	4.0%		1 445 575	8 852 341			343	3 445	3 788	3 987
	Business Area	General Office Building	6 895	2 516 675	Primary	75.0%	Commercial-Based Commute	35.0%	13.3	25.1%		659,746	7,023,000			156	2,733	2,890	3,042
					Diverted	20.0%	Commercial-Based Non-Worl	0.0%	7.4	25.1%		0	0			0	0	0	0
					Passby	5.0%	Commercial-Based Customer	47.5%	8.9	25.1%		895,370	6,379,512			212	2,483	2,695	2,837
	Studio Area	Studio/Production Support	2 908	1 061 420	Primary	75.0%	Commercial-Based Commute	35.0%	13.3	12.2%		326,174	3,472,126			77	1,351	1,429	1,504
					Diverted	20.0%	Commercial-Based Non-Worl	0.0%	7.4	12.2%		0	0			0	0	0	0
					Passby	5.0%	Commercial-Based Customer	47.5%	8.9	12.2%		442 665	3 153 990			105	1 227	1 332	1 403
	All Land Uses		***36,451***	***13,304,615***	***	***	**Subtotal for Group A Vehicles**					**10,531,347**	**84,644,772**	**237.04**	**389.17**	**2,496**	**32,942**	**35,438**	**37,303**
Group B Commercial Vehicles (Vehicles > 8,500 lbs: LHDT1, LHDT2, MHDT, HHDT) Pavley Standards Not Applicable Heavy-Duty Standards Applicabl for HHDT and some MHDT[12]	Mixed-Use Residential Area	Single-Family Housing	17 796	6 495 401	Primary	85.0%	Home-Based Work	0.0%	12.7	21.1%		0	0	212.3	1184.8	0	0	0	0
					Diverted	10.0%	Home-Based Shop	0.0%	7.0	21.1%		0	0			0	0	0	0
					Passby	5.0%	Home-Based Other	0.0%	9.5	21.1%		0	0			0	0	0	0
		Strip Mall	2 669	974 324	Primary	45.0%	Commercial-Based Commute	0.0%	13.3	0.0%		0	0			0	0	0	0
					Diverted	40.0%	Commercial-Based Non-Worl	1.0%	7.4	0.0%		9,743	39,801			2	47	49	52
					Passby	15.0%	Commercial-Based Customer	0.0%	8.9	0.0%		0	0			0	0	0	0
	Entertainment Area	Entertainment Center	1 723	628 895	Primary	90.0%	Commercial-Based Commute	0.0%	13.3	7.7%		0	0			0	0	0	0
					Diverted	10.0%	Commercial-Based Non-Worl	1.0%	7.4	7.7%		5,805	39,733			1	47	48	51
					Passby	0.0%	Commercial-Based Customer	0.0%	8.9	4.0%		0	0			0	0	0	0
		Hotel	4 460	1 627 900	Primary	60.0%	Commercial-Based Commute	0.0%	13.3	7.7%		0	0			0	0	0	0
					Diverted	35.0%	Commercial-Based Non-Worl	2.5%	7.4	7.7%		37 564	191 294			8	227	235	247
					Passby	5.0%	Commercial-Based Customer	0.0%	8.9	4.0%		0	0			0	0	0	0
	Business Area	General Office Building	6 895	2 516 675	Primary	75.0%	Commercial-Based Commute	0.0%	13.3	25.1%		0	0			0	0	0	0
					Diverted	20.0%	Commercial-Based Non-Worl	17.5%	7.4	25.1%		329,873	1,954,499			70	2,316	2,386	2,511
					Passby	5.0%	Commercial-Based Customer	0.0%	8.9	25.1%		0	0			0	0	0	0
	Studio Area	Studio/Production Support	2 908	1 061 420	Primary	75.0%	Commercial-Based Commute	0.0%	13.3	12.2%		0	0			0	0	0	0
					Diverted	20.0%	Commercial-Based Non-Worl	17.5%	7.4	12.2%		163,087	966,292			35	1,145	1,179	1,242
					Passby	5.0%	Commercial-Based Customer	0.0%	8.9	12.2%		0	0			0	0	0	0
	All Land Uses		***36,451***	***13,304,615***	***	***	**Subtotal for Group B Vehicles**					**546,072**	**3,191,618**	**212.3**	**1184.8**	**116**	**3,781**	**3,897**	**4,102**
Total for All Vehicles			**36,451**	**13,304,615**	***	***	**Total for All Vehicles**					**11,077,419**	**87,836,390**	***	***	**2,612**	**36,723**	**39,335**	**41,405**

Abbreviations:
CO_2 - carbon dioxide
CO_2e - carbon dioxide equivalent
TDM - Transportation Demand Management Program
URBEMIS - URBan EMISsions modeling software
VMT - vehicle miles traveled
Vehicle Classes (from EMFAC User Guide):
lbs - pounds

Abbreviations cont'd:
Vehicle Classes (from EMFAC User Guide):
LDA - Light Duty Auto (Passenger Cars)
LDT1, LDT2 - Light-Duty Trucks (0-3,750 lbs; 3,751-5,750 lbs)
MDV - Medium Duty Trucks (5,751-8,500 lbs)
LHDT1, LHDT2 - Light-Heavy-Duty Trucks (8,501-10,000 lbs; 10,001-14,000 lbs)
MHDT - Medium-Heavy-Duty Trucks (14,001-33,000 lbs)
HHDT - Heavy-Heavy-Duty Trucks (33,001-60,000 lbs)

Notes:
1. URBEMIS does not contain default settings for "Entertainment Center" and "Studio/Production Support"; "Entertainment Center" was based on URBEMIS default "general land use" settings, and "Studio/Production Support" was based on General Office Building settings.
2. Daily number of trips are based on information provided in the NBC Universal Evolution Plan Transportation Study. Trips are assumed to be one-way.
3. Annual number of trips Daily number of trips*365
4. % trip type data are URBEMIS defaults for each land use type.
5. Trip purpose categories and the associated trip lengths are URBEMIS defaults for each land use type. % trip purpose data are based on URBEMIS defaults and the following assumptions made by ENVIRON: a) All home-based trips are performed by Group A vehicles only; b) All commercial-based non-work trips are performed by Group B vehicles only.
6. % trip reduction data are based on information provided in Table 18 of the NBC Universal Evolution Plan Transportation Study.
7. VMT was adjusted to account for diverted and pass-by trips using the following default information from URBEMIS: diverted trip length is assumed to be 25% of primary trip length. Pass-by trip length is assumed to be 0.1 miles.
8. Startup emission factors are taken from EMFAC. ENVIRON applied the conservative assumption of 720 minutes (12 hours) between startups. For Group B vehicles, the EMFAC startup emission factors are weighted by truck type based on an estimate of truck activity at the site, consistent with the Air Quality analysis.
9. Running emission factors are taken from EMFAC at 30 mph (URBEMIS default). For Group B vehicles, the EMFAC running emission factors are weighted by truck type based on an estimate of truck activity at the site, consistent with the Air Quality analysis.
10. CO_2e CO_2/0.95: The United States Environmental Protection Agency (USEPA) recommends assuming that CH N_2O, and HFCs are 5% of emissions on a CO_2e basis.
11. AB 1493 ("the Pavley Standard") refers to the reduction of GHG emissions from noncommercial passenger vehicles and light and medium-duty trucks of model year 2009 and thereafter, as required by the state of California (see ARB 2008a). The regulated vehicle classes are shown here for comparison purposes only; a reduction in GHG emissions is not applied in this calculation scenario.
12. ARB adopted a regulation to reduce greenhouse gas emissions by improving the fuel efficiency of heavy-duty trucks (see ARB 2008b). The regulated vehicle classes are shown here for comparison purposes only; a reduction in GHG emissions is not applied in this calculation scenario.

Sources:

Gibson Transportation, Raju Associates, 2010. Transportation Study for the Universal City Evolution Plan Environmental Impact Report.
SCAQMD, 2007. URBEMIS2007 for Windows. November. http://www.urbemis.com/
CARB, 2007. EMFAC2007. http://www.arb.ca.gov/msei/onroad/latest_version.htm
California Air Resources Board (ARB). 2008a. Comparison of Greenhouse Gas Reductions For the United States and Canada Under U.S. CAFE Standards and California Air Resources Board Greenhouse Gas Regulations. Available at: http://www.arb.ca.gov/cc/ccms/reports/pavleycafe_reportfeb25_08.pdf.
California Air Resources Board (ARB). 2008b. Public hearing to consider adoption of the regulation to reduce greenhouse gas emissions from heavy-duty vehicles. October. Available at: http://www.arb.ca.gov/regact/2008/ghghdv08/ghgisor.pdf.

Table H.6.-1C. CO_2 Emissions (with TDM, Pavley, and Heavy-Duty Standards) in Project Year 2020 (all)
NBC Universal
Evolution Plan

Vehicle Class	Land Use		Total Number of Trips completed by All (Group A Group B) Vehicles		Trip Characteristics							Number of Trips and VMT completed by Group X of Vehicles		Emission Factors		Annual Emissions			
	per Project Transportation Study	Categories for URBEMIS[1]	Total Daily Trips[2]	Total Annual Trips[3]	Trip Type	% Trip Type[4]	Trip Purpose[5]	% Trip Purpose[5]	Trip Length [by Trip Purpose][5] (miles)	% Trip Reduction due to TDM[6]		Annual Trips	Annual VMT[7] (miles)	Startup[8] (g/start)	Running[9] (g/mile)	Annual Startup CO_2 Emissions (tonnes)	Annual Running CO_2 Emissions (tonnes)	Total Annual CO_2 Emissions (tonnes)	Total Annual CO_2e Emissions[10] (tonnes)
Group A Passenger Vehicles (Vehicles < 8,500 lbs: LDA, LDT1, LDT2, MDV) Pavley Standards Applicable[11]	Mixed-Use Residential Area	Single-Family Housing	17 796	6 495 401	Primary	85.0%	Home-Based Work	32.9%	12.7	21.1%		1,686,083	18,745,025	189.0	310.4	319	5,818	6,136	6,459
					Diverted	10.0%	Home-Based Shop	18.0%	7.0	21.1%		922 477	5 654 783			174	1 755	1 929	2 031
					Passby	5.0%	Home-Based Other	49.1%	9.5	21.1%		2,516,312	20,929,425			476	6,495	6,971	7,338
		Strip Mall	2 669	974 324	Primary	45.0%	Commercial-Based Commute	2.0%	13.3	0.0%		19,486	142,836			4	44	48	51
					Diverted	40.0%	Commercial-Based Non-Work	0.0%	7.4	0.0%		0	0			0	0	0	0
					Passby	15.0%	Commercial-Based Customer	97.0%	8.9	0.0%		945 094	4 640 411			179	1 440	1 619	1 704
	Entertainment Area	Entertainment Center	1 723	628 895	Primary	90.0%	Commercial-Based Commute	2.0%	13.3	7.7%		11,609	142,825			2	44	47	49
					Diverted	10.0%	Commercial-Based Non-Work	0.0%	7.4	7.7%		0	0			0	0	0	0
					Passby	0.0%	Commercial-Based Customer	97.0%	8.9	4.0%		585 627	4 821 174			111	1 496	1 607	1 692
		Hotel	4 460	1 627 900	Primary	60.0%	Commercial-Based Commute	5.0%	13.3	7.7%		75 128	687 323			14	213	228	239
					Diverted	35.0%	Commercial-Based Non-Work	0.0%	7.4	7.7%		0	0			0	0	0	0
					Passby	5.0%	Commercial-Based Customer	92.5%	8.9	4.0%		1,445,575	8,852,341			273	2,747	3,021	3,180
	Business Area	General Office Building	6 895	2 516 675	Primary	75.0%	Commercial-Based Commute	35.0%	13.3	25.1%		659,746	7,023,000			125	2,180	2,304	2,426
					Diverted	20.0%	Commercial-Based Non-Work	0.0%	7.4	25.1%		0	0			0	0	0	0
					Passby	5.0%	Commercial-Based Customer	47.5%	8.9	25.1%		895,370	6,379,512			169	1,980	2,149	2,262
	Studio Area	Studio/Production Support	2 908	1 061 420	Primary	75.0%	Commercial-Based Commute	35.0%	13.3	12.2%		326,174	3,472,126			62	1,078	1,139	1,199
					Diverted	20.0%	Commercial-Based Non-Work	0.0%	7.4	12.2%		0	0			0	0	0	0
					Passby	5.0%	Commercial-Based Customer	47.5%	8.9	12.2%		442 665	3 153 990			84	979	1 063	1 118
	All Land Uses		*36,451*	*13,304,615*	***	***	**Subtotal for Group A Vehicles**					**10,531,347**	**84,644,772**	**189.03**	**310.35**	**1,991**	**26,270**	**28,260**	**29,748**
Group B Commercial Vehicles (Vehicles > 8,500 lbs: LHDT1, LHDT2, MHDT, HHDT) Pavley Standards Not Applicable Heavy-Duty Standards Applicable for HHDT and some MHDT[12]	Mixed-Use Residential Area	Single-Family Housing	17 796	6 495 401	Primary	85.0%	Home-Based Work	0.0%	12.7	21.1%		0	0	212.3	1132.9	0	0	0	0
					Diverted	10.0%	Home-Based Shop	0.0%	7.0	21.1%		0	0			0	0	0	0
					Passby	5.0%	Home-Based Other	0.0%	9.5	21.1%		0	0			0	0	0	0
		Strip Mall	2 669	974 324	Primary	45.0%	Commercial-Based Commute	0.0%	13.3	0.0%		0	0			0	0	0	0
					Diverted	40.0%	Commercial-Based Non-Work	1.0%	7.4	0.0%		9,743	39,801			2	45	47	50
					Passby	15.0%	Commercial-Based Customer	0.0%	8.9	0.0%		0	0			0	0	0	0
	Entertainment Area	Entertainment Center	1 723	628 895	Primary	90.0%	Commercial-Based Commute	0.0%	13.3	7.7%		0	0			0	0	0	0
					Diverted	10.0%	Commercial-Based Non-Work	1.0%	7.4	7.7%		5,805	39,733			1	45	46	49
					Passby	0.0%	Commercial-Based Customer	0.0%	8.9	4.0%		0	0			0	0	0	0
		Hotel	4 460	1 627 900	Primary	60.0%	Commercial-Based Commute	0.0%	13.3	7.7%		0	0			0	0	0	0
					Diverted	35.0%	Commercial-Based Non-Work	2.5%	7.4	7.7%		37 564	191 294			8	217	225	237
					Passby	5.0%	Commercial-Based Customer	0.0%	8.9	4.0%		0	0			0	0	0	0
	Business Area	General Office Building	6 895	2 516 675	Primary	75.0%	Commercial-Based Commute	0.0%	13.3	25.1%		0	0			0	0	0	0
					Diverted	20.0%	Commercial-Based Non-Work	17.5%	7.4	25.1%		329,873	1,954,499			70	2,214	2,284	2,405
					Passby	5.0%	Commercial-Based Customer	0.0%	8.9	25.1%		0	0			0	0	0	0
	Studio Area	Studio/Production Support	2 908	1 061 420	Primary	75.0%	Commercial-Based Commute	0.0%	13.3	12.2%		0	0			0	0	0	0
					Diverted	20.0%	Commercial-Based Non-Work	17.5%	7.4	12.2%		163,087	966,292			35	1,095	1,129	1,189
					Passby	5.0%	Commercial-Based Customer	0.0%	8.9	12.2%		0	0			0	0	0	0
	All Land Uses		*36,451*	*13,304,615*	***	***	**Subtotal for Group B Vehicles**					**546,072**	**3,191,618**	**212.3**	**1132.9**	**116**	**3,616**	**3,732**	**3,928**
Total for All Vehicles			**36,451**	**13,304,615**	***	***	**Total for All Vehicles**					**11,077,419**	**87,836,390**	***	***	**2,107**	**29,885**	**31,992**	**33,676**

Abbreviations:
CO_2 - carbon dioxide
CO_2e - carbon dioxide equivalent
TDM - Transportation Demand Management Program
URBEMIS - URBan EMISsions modeling software
VMT - vehicle miles traveled
Vehicle Classes (from EMFAC User Guide):
lbs - pounds

Abbreviations cont'd:
Vehicle Classes (from EMFAC User Guide):
LDA - Light Duty Auto (Passenger Cars)
LDT1, LDT2 - Light-Duty Trucks (0-3,750 lbs; 3,751-5,750 lbs)
MDV - Medium Duty Trucks (5,751-8,500 lbs)
LHDT1, LHDT2 - Light-Heavy-Duty Trucks (8,501-10,000 lbs; 10,001-14,000 lbs)
MHDT - Medium-Heavy-Duty Trucks (14,001-33,000 lbs)
HHDT - Heavy-Heavy-Duty Trucks (33,001-60,000 lbs)

Notes:
1. URBEMIS does not contain default settings for "Entertainment Center" and "Studio/Production Support"; "Entertainment Center" was based on URBEMIS default "general land use" settings, and "Studio/Production Support" was based on General Office Building settings.
2. Daily number of trips are based on information provided in the NBC Universal Evolution Plan Transportation Study. Trips are assumed to be one-way.
3. Annual number of trips Daily number of trips*365
4. % trip type data are URBEMIS defaults for each land use type.

5. Trip purpose categories and the associated trip lengths are URBEMIS defaults for each land use type. % trip purpose data are based on URBEMIS defaults and the following assumptions made by ENVIRON: a) All home-based trips are performed by Group A vehicles only; b) All commercial-based non-work trips are performed by Group B vehicles only.

6. % trip reduction data are based on information provided in Table 18 of the NBC Universal Evolution Plan Transportation Study.
7. VMT was adjusted to account for diverted and pass-by trips using the following default information from URBEMIS: diverted trip length is assumed to be 25% of primary trip length. Pass-by trip length is assumed to be 0.1 miles.
8. Startup emission factors are taken from EMFAC. ENVIRON applied the conservative assumption of 720 minutes (12 hours) between startups. For Group B vehicles, the EMFAC startup emission factors are weighted by truck type based on an estimate of truck activity at the site, consistent with the Air Quality analysis.
9. Running emission factors are taken from EMFAC at 30 mph (URBEMIS default). For Group B vehicles, the EMFAC running emission factors are weighted by truck type based on an estimate of truck activity at the site, consistent with the Air Quality analysis.
10. CO_2e CO_2/0.95: The United States Environmental Protection Agency (USEPA) recommends assuming that CH_4 N_2O, and HFCs are 5% of emissions on a CO_2e basis.

11. A 20.25% reduction in starting and running emissions was taken to account for the AB 1493 "Pavley Standards" for noncommercial passenger vehicles and light and medium-duty trucks. The percent reduction was based on data for year 2020 in Table 11 of the 2008a ARB report. This reduction was applied to both the startup and running emission factors.

12. An 8.77% reduction in the running emissions of all HHDT and some MHDT was taken to account for the ARB Heavy Duty Vehicle Greenhouse Gas Measure. The percent reduction was based on data for year 2020 in Table XI-2 in the 2008b ARB report. This 8.8% reduction was applied to 37% of MHDT assuming an even distribution of vehicles throughout the MHDT weight class. This reduction was applied to the running emission factor only.

Sources:

Gibson Transportation, Raju Associates, 2010. Transportation Study for the Universal City Evolution Plan Environmental Impact Report.
SCAQMD, 2007. URBEMIS2007 for Windows. November. http://www.urbemis.com/
CARB, 2007. EMFAC2007. http://www.arb.ca.gov/msei/onroad/latest_version.htm
California Air Resources Board (ARB). 2008a. Comparison of Greenhouse Gas Reductions For the United States and Canada Under U.S. CAFE Standards and California Air Resources Board Greenhouse Gas Regulations. Available at: http://www.arb.ca.gov/cc/ccms/reports/pavleycafe_reportfeb25_08.pdf.
California Air Resources Board (ARB). 2008b. Public hearing to consider adoption of the regulation to reduce greenhouse gas emissions from heavy-duty vehicles. October. Available at: http://www.arb.ca.gov/regact/2008/ghghdv08/ghgisor.pdf.

Table H.6.-2A. CO_2 Emissions in Project Year 2020 (all, reduced trip length)
NBC Universal
Evolution Plan

Vehicle Class	Land Use		Total Number of Trips completed by All (Group A + Group B) Vehicles		Trip Characteristics					Number of Trips and VMT completed by Group X of Vehicles		Emission Factors		Annual Emissions			
	per Project Transprotation Study	Categories for URBEMIS[1]	Total Daily Trips[2]	Total Annual Trips[3]	Trip Type	% Trip Type[4]	Trip Purpose[5]	% Trip Purpose[5]	Trip Length [by Trip Purpose][5] (miles)	Annual Trips	Annual VMT[6] (miles)	Startup[7] (g/start)	Running[8] (g/mile)	Annual Startup CO_2 Emissions (tonnes)	Annual Running CO_2 Emissions (tonnes)	Total Annual CO_2 Emissions (tonnes)	Total Annual CO_2e Emissions[9] (tonnes)
Group A Passenger Vehicles (Vehicles <= 8,500 lbs LDA, LDT1, LDT2, MDV) Pavley Standards Applicable[10]	Mixed-Use Residential Area	Single-Family Housing	17 796	6 495 401	Primary	85.0%	Home-Based Work	32.9%	10.3	2,136,987	19,288,979	237.0	389.2	507	7,507	8,013	8,435
					Diverted	10.0%	Home-Based Shop	18.0%	7.0	1,169,172	7,167,026			277	2,789	3,066	3,228
					Passby	5.0%	Home-Based Other	49.1%	9.5	3 189 242	26 526 521			756	10 323	11 079	11 663
		Strip Mall	2 669	974 324	Primary	45.0%	Commercial-Based Commute	2.0%	13.3	19,486	142,836			5	56	60	63
					Diverted	40.0%	Commercial-Based Non-Work	0.0%	7.4	0	0			0	0	0	0
					Passby	15.0%	Commercial-Based Customer	97.0%	8.9	945,094	4,640,411			224	1,806	2,030	2,137
	Entertainment Area	Entertainment Center	1 723	628 895	Primary	90.0%	Commercial-Based Commute	2.0%	13.3	12 578	154 740			3	60	63	67
					Diverted	10.0%	Commercial-Based Non-Work	0.0%	7.4	0	0			0	0	0	0
					Passby	0.0%	Commercial-Based Customer	97.0%	8.9	610,028	5,022,057			145	1,954	2,099	2,210
		Hotel	4 460	1 627 900	Primary	60.0%	Commercial-Based Commute	5.0%	13.3	81 395	744 663			19	290	309	325
					Diverted	35.0%	Commercial-Based Non-Work	0.0%	7.4	0	0			0	0	0	0
					Passby	5.0%	Commercial-Based Customer	92.5%	8.9	1,505,808	9,221,189			357	3,589	3,946	4,153
	Business Area	General Office Building	6 895	2 516 675	Primary	75.0%	Commercial-Based Commute	35.0%	13.3	880,836	9,376,502			209	3,649	3,858	4,061
					Diverted	20.0%	Commercial-Based Non-Work	0.0%	7.4	0	0			0	0	0	0
					Passby	5.0%	Commercial-Based Customer	47.5%	8.9	1,195,421	8,517,372			283	3,315	3,598	3,787
	Studio Area	Studio/Production Support	2 908	1 061 420	Primary	75.0%	Commercial-Based Commute	35.0%	13.3	371,497	3,954,586			88	1,539	1,627	1,713
					Diverted	20.0%	Commercial-Based Non-Work	0.0%	7.4	0	0			0	0	0	0
					Passby	5.0%	Commercial-Based Customer	47.5%	8.9	504,175	3,592,243			120	1,398	1,518	1,597
	All Land Uses		*36,451*	*13,304,615*	***	***	**Subtotal for Group A Vehicles**			**12,621,719**	**98,349,123**	**237.04**	**389.17**	**2,992**	**38,275**	**41,267**	**43,439**
Group B Commercial Vehicles (Vehicles > 8,500 lbs LHDT1, LHDT2, MHDT, HHDT) Pavley Standards Not Applicable; Heavy-Duty Standards Applicable for HHDT and some MHDT[11]	Mixed-Use Residential Area	Single-Family Housing	17 796	6 495 401	Primary	85.0%	Home-Based Work	0.0%	10.3	0	0	212.3	1184.8	0	0	0	0
					Diverted	10.0%	Home-Based Shop	0.0%	7.0	0	0			0	0	0	0
					Passby	5.0%	Home-Based Other	0.0%	9.5	0	0			0	0	0	0
		Strip Mall	2 669	974 324	Primary	45.0%	Commercial-Based Commute	0.0%	13.3	0	0			0	0	0	0
					Diverted	40.0%	Commercial-Based Non-Work	1.0%	7.4	9,743	39,801			2	47	49	52
					Passby	15.0%	Commercial-Based Customer	0.0%	8.9	0	0			0	0	0	0
	Entertainment Area	Entertainment Center	1 723	628 895	Primary	90.0%	Commercial-Based Commute	0.0%	13.3	0	0			0	0	0	0
					Diverted	10.0%	Commercial-Based Non-Work	1.0%	7.4	6,289	43,048			1	51	52	55
					Passby	0.0%	Commercial-Based Customer	0.0%	8.9	0	0			0	0	0	0
		Hotel	4 460	1 627 900	Primary	60.0%	Commercial-Based Commute	0.0%	13.3	0	0			0	0	0	0
					Diverted	35.0%	Commercial-Based Non-Work	2.5%	7.4	40,698	207,252			9	246	254	268
					Passby	5.0%	Commercial-Based Customer	0.0%	8.9	0	0			0	0	0	0
	Business Area	General Office Building	6 895	2 516 675	Primary	75.0%	Commercial-Based Commute	0.0%	13.3	0	0			0	0	0	0
					Diverted	20.0%	Commercial-Based Non-Work	17.5%	7.4	440,418	2,609,477			94	3,092	3,185	3,353
					Passby	5.0%	Commercial-Based Customer	0.0%	8.9	0	0			0	0	0	0
	Studio Area	Studio/Production Support	2 908	1 061 420	Primary	75.0%	Commercial-Based Commute	0.0%	13.3	0	0			0	0	0	0
					Diverted	20.0%	Commercial-Based Non-Work	17.5%	7.4	185,749	1,100,560			39	1,304	1,343	1,414
					Passby	5.0%	Commercial-Based Customer	0.0%	8.9	0	0			0	0	0	0
	All Land Uses		*36,451*	*13,304,615*	***	***	**Subtotal for Group B Vehicles**			**682,896**	**4,000,138**	**212.3**	**1184.8**	**145**	**4,739**	**4,884**	**5,141**
Total for All Vehicles			**36,451**	**13,304,615**	***	***	**Total for All Vehicles**			**13,304,615**	**102,349,261**	***	***	**3,137**	**43,014**	**46,151**	**48,580**

Abbreviations:
CO_2 - carbon dioxide
CO_2e - carbon dioxide equivalent
TDM - Transportation Demand Management Program
URBEMIS - URBan EMISsions modeling software
VMT - vehicle miles traveled
Vehicle Classes (from EMFAC User Guide)
lbs - pounds

Abbreviations cont'd:
Vehicle Classes (from EMFAC User Guide)
LDA - Light Duty Auto (Passenger Cars)
LDT1, LDT2 - Light-Duty Trucks (0-3,750 lbs; 3,751-5,750 lbs)
MDV - Medium Duty Trucks (5,751-8,500 lbs)
LHDT1, LHDT2 - Light-Heavy-Duty Trucks (8,501-10,000 lbs; 10,001-14,000 lbs)
MHDT - Medium-Heavy-Duty Trucks (14,001-33,000 lbs)
HHDT - Heavy-Heavy-Duty Trucks (33,001-60,000 lbs)

Notes:
1. URBEMIS does not contain default settings for "Entertainment Center" and "Studio/Production Support"; "Entertainment Center" was based on URBEMIS default "general land use" settings, and "Studio/Production Support" was based on General Office Building settings.
2. Daily number of trips are based on information provided in the NBC Universal Evolution Plan. Trips are assumed to be one-way.
3. Annual number of trips = Daily number of trips*365
4. % trip type data are URBEMIS defaults for each land use type.
5. Trip purpose categories and the associated trip lengths are URBEMIS defaults for each land use type, with the exception of home-based-work trips, for which a project-specific value was supplied. % trip purpose data are based on URBEMIS defaults and the following assumptions made by ENVIRON a) All home-based trips are performe vehicles only; b) All commercial-based non-work trips are performed by Group B vehicles only.
6. VMT was adjusted to account for diverted and pass-by trips using the following default information from URBEMIS diverted trip length is assumed to be 25% of primary trip length. Pass-by trip length is assumed to be 0.1 miles.
7. Startup emission factors are taken from EMFAC. ENVIRON applied the conservative assumption of 720 minutes (12 hours) between startups. For Group B vehicles, the EMFAC startup emission factors are weighted by truck type based on an estimate of truck activity at the site, consistent with the Air Quality analysis.
8. Running emission factors are taken from EMFAC at 30 mph (URBEMIS default). For Group B vehicles, the EMFAC running emission factors are weighted by truck type based on an estimate of truck activity at the site, consistent with the Air Quality analysis.
9. $CO_2e=CO_2/0.95$ The United States Environmental Protection Agency (USEPA) recommends assuming that CH_4 N_2O, and HFCs are 5% of emissions on a CO_2e basis.
10. AB 1493 ("the Pavley Standard") refers to the reduction of GHG emissions from noncommercial passenger vehicles and light and medium-duty trucks of model year 2009 and thereafter, as required by the state of California (see ARB 2008a). The regulated vehicle classes are shown here for comparison purposes only; a reduction in GHG emissions is not applied in this calculation scenario.
11. ARB adopted a regulation to reduce greenhouse gas emissions by improving the fuel efficiency of heavy-duty trucks (see ARB 2008b). The regulated vehicle classes are shown here for comparison purposes only; a reduction in GHG emissions is not applied in this calculation scenario.

Sources:

Gibson Transportation, Raju Associates, 2010. Transportation Study for the Universal City Evolution Plan Environmental Impact Report.
SCAQMD, 2007. URBEMIS2007 for Windows. November. http //www.urbemis.com/
CARB, 2007. EMFAC2007. http //www.arb.ca.gov/msei/onroad/latest_version.htm
California Air Resources Board (ARB). 2008a. Comparison of Greenhouse Gas Reductions For the United States and Canada Under U.S. CAFE Standards and California Air Resources Board Greenhouse Gas Regulations. Available at http //www.arb.ca.gov/cc/ccms/reports/pavleycafe_reportfeb25_08.pdf.
California Air Resources Board (ARB). 2008b. Public hearing to consider adoption of the regulation to reduce greenhouse gas emissions from heavy-duty vehicles. October. Available at http //www.arb.ca.gov/regact/2008/ghghdv08/ghgisor.pdf.

Table H.6.-2B. CO_2 Emissions (with TDM) in Project Year 2020 (all, reduced trip length)
NBC Universal
Evolution Plan

Vehicle Class	Land Use		*Total Number of Trips completed by All (Group A + Group B) Vehicles*		Trip Characteristics						Number of Trips and VMT completed by Group X of Vehicles		Emission Factors		Annual Emissions			
	per Project Transprotation Study	Categories for URBEMIS[1]	*Total Daily Trips*[2]	*Total Annual Trips*[3]	Trip Type	% Trip Type[4]	Trip Purpose[5]	% Trip Purpose[5]	Trip Length [by Trip Purpose][5] (miles)	% Trip Reduction due to TDM[6]	Annual Trips	Annual VMT[7] (miles)	Startup[8] (g/start)	Running[9] (g/mile)	Annual Startup CO_2 Emissions (tonnes)	Annual Running CO_2 Emissions (tonnes)	Total Annual CO_2 Emissions (tonnes)	Total Annual CO_2e Emissions[10] (tonnes)
Group A **Passenger Vehicles** (Vehicles <= 8,500 lbs LDA, LDT1, LDT2, MDV) Pavley Standards Applicable[11]	Mixed-Use Residential Area	Single-Family Housing	*17 796*	*6 495 401*	Primary	85.0%	Home-Based Work	32.9%	10.3	21.1%	1,686,083	15,219,005	237.0	389.2	400	5,923	6,323	6,655
					Diverted	10.0%	Home-Based Shop	18.0%	7.0	21.1%	922 477	5 654 783			219	2 201	2 419	2 547
					Passby	5.0%	Home-Based Other	49.1%	9.5	21.1%	2 516 312	20 929 425			596	8 145	8 742	9 202
		Strip Mall	*2 669*	*974 324*	Primary	45.0%	Commercial-Based Commute	2.0%	13.3	0.0%	19,486	142,836			5	56	60	63
					Diverted	40.0%	Commercial-Based Non-Work	0.0%	7.4	0.0%	0	0			0	0	0	0
					Passby	15.0%	Commercial-Based Customer	97.0%	8.9	0.0%	945 094	4 640 411			224	1 806	2 030	2 137
	Entertainment Area	Entertainment Center	*1 723*	*628 895*	Primary	90.0%	Commercial-Based Commute	2.0%	13.3	7.7%	11,609	142,825			3	56	58	61
					Diverted	10.0%	Commercial-Based Non-Work	0.0%	7.4	7.7%	0	0			0	0	0	0
					Passby	0.0%	Commercial-Based Customer	97.0%	8.9	4.0%	585,627	4,821,174			139	1,876	2,015	2,121
		Hotel	*4 460*	*1 627 900*	Primary	60.0%	Commercial-Based Commute	5.0%	13.3	7.7%	75 128	687 323			18	267	285	300
					Diverted	35.0%	Commercial-Based Non-Work	0.0%	7.4	7.7%	0	0			0	0	0	0
					Passby	5.0%	Commercial-Based Customer	92.5%	8.9	4.0%	1,445,575	8,852,341			343	3,445	3,788	3,987
	Business Area	General Office Building	*6 895*	*2 516 675*	Primary	75.0%	Commercial-Based Commute	35.0%	13.3	25.1%	659 746	7 023 000			156	2 733	2 890	3 042
					Diverted	20.0%	Commercial-Based Non-Work	0.0%	7.4	25.1%	0	0			0	0	0	0
					Passby	5.0%	Commercial-Based Customer	47.5%	8.9	25.1%	895,370	6,379,512			212	2,483	2,695	2,837
	Studio Area	Studio/Production Support	*2 908*	*1 061 420*	Primary	75.0%	Commercial-Based Commute	35.0%	13.3	12.2%	326,174	3,472,126			77	1,351	1,429	1,504
					Diverted	20.0%	Commercial-Based Non-Work	0.0%	7.4	12.2%	0	0			0	0	0	0
					Passby	5.0%	Commercial-Based Customer	47.5%	8.9	12.2%	442,665	3,153,990			105	1,227	1,332	1,403
	All Land Uses		***36,451***	***13,304,615***	***	***	**Subtotal for Group A Vehicles**				**10,531,347**	**81,118,751**	**237.04**	**389.17**	**2,496**	**31,569**	**34,066**	**35,859**
Group B **Commercial Vehicles** (Vehicles > 8,500 lbs LHDT1, LHDT2, MHDT, HHDT) Pavley Standards Not Applicable; Heavy-Duty Standards Applicable for HHDT and some MHDT[12]	Mixed-Use Residential Area	Single-Family Housing	*17 796*	*6 495 401*	Primary	85.0%	Home-Based Work	0.0%	10.3	21.1%	0	0	212.3	1184.8	0	0	0	0
					Diverted	10.0%	Home-Based Shop	0.0%	7.0	21.1%	0	0			0	0	0	0
					Passby	5.0%	Home-Based Other	0.0%	9.5	21.1%	0	0			0	0	0	0
		Strip Mall	*2 669*	*974 324*	Primary	45.0%	Commercial-Based Commute	0.0%	13.3	0.0%	0	0			0	0	0	0
					Diverted	40.0%	Commercial-Based Non-Work	1.0%	7.4	0.0%	9,743	39,801			2	47	49	52
					Passby	15.0%	Commercial-Based Customer	0.0%	8.9	0.0%	0	0			0	0	0	0
	Entertainment Area	Entertainment Center	*1 723*	*628 895*	Primary	90.0%	Commercial-Based Commute	0.0%	13.3	7.7%	0	0			0	0	0	0
					Diverted	10.0%	Commercial-Based Non-Work	1.0%	7.4	7.7%	5,805	39,733			1	47	48	51
					Passby	0.0%	Commercial-Based Customer	0.0%	8.9	4.0%	0	0			0	0	0	0
		Hotel	*4 460*	*1 627 900*	Primary	60.0%	Commercial-Based Commute	0.0%	13.3	7.7%	0	0			0	0	0	0
					Diverted	35.0%	Commercial-Based Non-Work	2.5%	7.4	7.7%	37,564	191,294			8	227	235	247
					Passby	5.0%	Commercial-Based Customer	0.0%	8.9	4.0%	0	0			0	0	0	0
	Business Area	General Office Building	*6 895*	*2 516 675*	Primary	75.0%	Commercial-Based Commute	0.0%	13.3	25.1%	0	0			0	0	0	0
					Diverted	20.0%	Commercial-Based Non-Work	17.5%	7.4	25.1%	329,873	1,954,499			70	2,316	2,386	2,511
					Passby	5.0%	Commercial-Based Customer	0.0%	8.9	25.1%	0	0			0	0	0	0
	Studio Area	Studio/Production Support	*2 908*	*1 061 420*	Primary	75.0%	Commercial-Based Commute	0.0%	13.3	12.2%	0	0			0	0	0	0
					Diverted	20.0%	Commercial-Based Non-Work	17.5%	7.4	12.2%	163,087	966,292			35	1,145	1,179	1,242
					Passby	5.0%	Commercial-Based Customer	0.0%	8.9	12.2%	0	0			0	0	0	0
	All Land Uses		***36,451***	***13,304,615***	***	***	**Subtotal for Group B Vehicles**				**546,072**	**3,191,618**	**212.3**	**1184.8**	**116**	**3,781**	**3,897**	**4,102**
Total for All Vehicles			**36,451**	**13,304,615**	***	***	**Total for All Vehicles**				**11,077,419**	**84,310,369**	***	***	**2,612**	**35,351**	**37,963**	**39,961**

Abbreviations:
CO_2 - carbon dioxide
CO_2e - carbon dioxide equivalent
TDM - Transportation Demand Management Program
URBEMIS - URBan EMISsions modeling software
VMT - vehicle miles traveled
Vehicle Classes (from EMFAC User Guide)
lbs - pounds

Abbreviations cont'd:
Vehicle Classes (from EMFAC User Guide)
LDA - Light Duty Auto (Passenger Cars)
LDT1, LDT2 - Light-Duty Trucks (0-3,750 lbs; 3,751-5,750 lbs)
MDV - Medium Duty Trucks (5,751-8,500 lbs)
LHDT1, LHDT2 - Light-Heavy-Duty Trucks (8,501-10,000 lbs; 10,001-14,000 lbs)
MHDT - Medium-Heavy-Duty Trucks (14,001-33,000 lbs)
HHDT - Heavy-Heavy-Duty Trucks (33,001-60,000 lbs)

Notes:
1. URBEMIS does not contain default settings for "Entertainment Center" and "Studio/Production Support"; "Entertainment Center" was based on URBEMIS default "general land use" settings, and "Studio/Production Support" was based on General Office Building settings.
2. Daily number of trips are based on information provided in the NBC Universal Evolution Plan. Trips are assumed to be one-way.
3. Annual number of trips = Daily number of trips*365
4. % trip type data are URBEMIS defaults for each land use type.
5. Trip purpose categories and the associated trip lengths are URBEMIS defaults for each land use type, with the exception of home-based-work trips, for which a project-specific value was supplied. % trip purpose data are based on URBEMIS defaults and the following assumptions made by ENVIRON a) All home-based trips are performed by Group A vehicles only; b) All commercial-based non-work trips are performed by Group B vehicles only.
6. % trip reduction data are based on information provided in Table 18 of the NBC Universal Evolution Plan Transportation Study.
7. VMT was adjusted to account for diverted and pass-by trips using the following default information from URBEMIS diverted trip length is assumed to be 25% of primary trip length. Pass-by trip length is assumed to be 0.1 miles.
8. Startup emission factors are taken from EMFAC. ENVIRON applied the conservative assumption of 720 minutes (12 hours) between startups. For Group B vehicles, the EMFAC startup emission factors are weighted by truck type based on an estimate of truck activity at the site, consistent with the Air Quality analysis.
9. Running emission factors are taken from EMFAC at 30 mph (URBEMIS default). For Group B vehicles, the EMFAC running emission factors are weighted by truck type based on an estimate of truck activity at the site, consistent with the Air Quality analysis.
10. $CO_2e=CO_2/0.95$ The United States Environmental Protection Agency (USEPA) recommends assuming that CH_4 N_2O, and HFCs are 5% of emissions on a CO_2e basis.
11. AB 1493 ("the Pavley Standard") refers to the reduction of GHG emissions from noncommercial passenger vehicles and light and medium-duty trucks of model year 2009 and thereafter, as required by the state of California (see ARB 2008a). The regulated vehicle classes are shown here for comparison purposes only; a reduction in GHG emissions is not applied in this calculation scenario.
12. ARB adopted a regulation to reduce greenhouse gas emissions by improving the fuel efficiency of heavy-duty trucks (see ARB 2008b). The regulated vehicle classes are shown here for comparison purposes only; a reduction in GHG emissions is not applied in this calculation scenario.

Sources:

Gibson Transportation, Raju Associates, 2010. Transportation Study for the Universal City Evolution Plan Environmental Impact Report.
SCAQMD, 2007. URBEMIS2007 for Windows. November. http //www.urbemis.com/
CARB, 2007. EMFAC2007. http //www.arb.ca.gov/msei/onroad/latest_version.htm
California Air Resources Board (ARB). 2008a. Comparison of Greenhouse Gas Reductions For the United States and Canada Under U.S. CAFE Standards and California Air Resources Board Greenhouse Gas Regulations. Available at http //www.arb.ca.gov/cc/ccms/reports/pavleycafe_reportfeb25_08.pdf.
California Air Resources Board (ARB). 2008b. Public hearing to consider adoption of the regulation to reduce greenhouse gas emissions from heavy-duty vehicles. October. Available at http //www.arb.ca.gov/regact/2008/ghghdv08/ghgisor.pdf.

Table H.6.-2C. CO_2 Emissions (with TDM, Pavley, and Heavy-Duty Standards) in Project Year 2020 (all, reduced trip length)
NBC Universal
Evolution Plan

Vehicle Class	Land Use		Total Number of Trips completed by All (Group A + Group B) Vehicles		Trip Characteristics						Number of Trips and VMT completed by Group X of Vehicles		Emission Factors		Annual Emissions			
	per Project Transprotation Study	Categories for URBEMIS[1]	Total Daily Trips[2]	Total Annual Trips[3]	Trip Type	% Trip Type[4]	Trip Purpose[5]	% Trip Purpose[5]	Trip Length [by Trip Purpose][5] (miles)	% Trip Reduction due to TDM[6]	Annual Trips	Annual VMT[7] (miles)	Startup[8] (g/start)	Running[9] (g/mile)	Annual Startup CO_2 Emissions (tonnes)	Annual Running CO_2 Emissions (tonnes)	Total Annual CO_2 Emissions (tonnes)	Total Annual CO_2e Emissions[10] (tonnes)
Group A **Passenger Vehicles** (Vehicles <= 8,500 lbs LDA, LDT1, LDT2, MDV) Pavley Standards Applicable[11]	Mixed-Use Residential Area	Single-Family Housing	17 796	6 495 401	Primary	85.0%	Home-Based Work	32.9%	10.3	21.1%	1,686,083	15,219,005	189.0	310.4	319	4,723	5,042	5,307
					Diverted	10.0%	Home-Based Shop	18.0%	7.0	21.1%	922,477	5,654,783			174	1,755	1,929	2,031
					Passby	5.0%	Home-Based Other	49.1%	9.5	21.1%	2,516,312	20,929,425			476	6,495	6,971	7,338
		Strip Mall	2 669	974 324	Primary	45.0%	Commercial-Based Commute	2.0%	13.3	0.0%	19,486	142,836			4	44	48	51
					Diverted	40.0%	Commercial-Based Non-Work	0.0%	7.4	0.0%	0	0			0	0	0	0
					Passby	15.0%	Commercial-Based Customer	97.0%	8.9	0.0%	945,094	4,640,411			179	1,440	1,619	1,704
	Entertainment Area	Entertainment Center	1 723	628 895	Primary	90.0%	Commercial-Based Commute	2.0%	13.3	7.7%	11,609	142,825			2	44	47	49
					Diverted	10.0%	Commercial-Based Non-Work	0.0%	7.4	7.7%	0	0			0	0	0	0
					Passby	0.0%	Commercial-Based Customer	97.0%	8.9	4.0%	585,627	4,821,174			111	1,496	1,607	1,692
		Hotel	4 460	1 627 900	Primary	60.0%	Commercial-Based Commute	5.0%	13.3	7.7%	75,128	687,323			14	213	228	239
					Diverted	35.0%	Commercial-Based Non-Work	0.0%	7.4	7.7%	0	0			0	0	0	0
					Passby	5.0%	Commercial-Based Customer	92.5%	8.9	4.0%	1,445,575	8,852,341			273	2,747	3,021	3,180
	Business Area	General Office Building	6 895	2 516 675	Primary	75.0%	Commercial-Based Commute	35.0%	13.3	25.1%	659,746	7,023,000			125	2,180	2,304	2,426
					Diverted	20.0%	Commercial-Based Non-Work	0.0%	7.4	25.1%	0	0			0	0	0	0
					Passby	5.0%	Commercial-Based Customer	47.5%	8.9	25.1%	895,370	6,379,512			169	1,980	2,149	2,262
	Studio Area	Studio/Production Support	2 908	1 061 420	Primary	75.0%	Commercial-Based Commute	35.0%	13.3	12.2%	326,174	3,472,126			62	1,078	1,139	1,199
					Diverted	20.0%	Commercial-Based Non-Work	0.0%	7.4	12.2%	0	0			0	0	0	0
					Passby	5.0%	Commercial-Based Customer	47.5%	8.9	12.2%	442,665	3,153,990			84	979	1,063	1,118
	All Land Uses		**36,451**	**13,304,615**	***	***	**Subtotal for Group A Vehicles**				**10,531,347**	**81,118,751**	**189.03**	**310.35**	**1,991**	**25,175**	**27,166**	**28,596**
Group B **Commercial Vehicles** (Vehicles > 8,500 lbs LHDT1, LHDT2, MHDT, HHDT) Pavley Standards Not Applicable; Heavy-Duty Standards Applicable for HHDT and some MHDT[12]	Mixed-Use Residential Area	Single-Family Housing	17 796	6 495 401	Primary	85.0%	Home-Based Work	0.0%	10.3	21.1%	0	0	212.3	1132.9	0	0	0	0
					Diverted	10.0%	Home-Based Shop	0.0%	7.0	21.1%	0	0			0	0	0	0
					Passby	5.0%	Home-Based Other	0.0%	9.5	21.1%	0	0			0	0	0	0
		Strip Mall	2 669	974 324	Primary	45.0%	Commercial-Based Commute	0.0%	13.3	0.0%	0	0			0	0	0	0
					Diverted	40.0%	Commercial-Based Non-Work	1.0%	7.4	0.0%	9,743	39,801			2	45	47	50
					Passby	15.0%	Commercial-Based Customer	0.0%	8.9	0.0%	0	0			0	0	0	0
	Entertainment Area	Entertainment Center	1 723	628 895	Primary	90.0%	Commercial-Based Commute	0.0%	13.3	7.7%	0	0			0	0	0	0
					Diverted	10.0%	Commercial-Based Non-Work	1.0%	7.4	7.7%	5,805	39,733			1	45	46	49
					Passby	0.0%	Commercial-Based Customer	0.0%	8.9	4.0%	0	0			0	0	0	0
		Hotel	4 460	1 627 900	Primary	60.0%	Commercial-Based Commute	0.0%	13.3	7.7%	0	0			0	0	0	0
					Diverted	35.0%	Commercial-Based Non-Work	2.5%	7.4	7.7%	37,564	191,294			8	217	225	237
					Passby	5.0%	Commercial-Based Customer	0.0%	8.9	4.0%	0	0			0	0	0	0
	Business Area	General Office Building	6 895	2 516 675	Primary	75.0%	Commercial-Based Commute	0.0%	13.3	25.1%	0	0			0	0	0	0
					Diverted	20.0%	Commercial-Based Non-Work	17.5%	7.4	25.1%	329,873	1,954,499			70	2,214	2,284	2,405
					Passby	5.0%	Commercial-Based Customer	0.0%	8.9	25.1%	0	0			0	0	0	0
	Studio Area	Studio/Production Support	2 908	1 061 420	Primary	75.0%	Commercial-Based Commute	0.0%	13.3	12.2%	0	0			0	0	0	0
					Diverted	20.0%	Commercial-Based Non-Work	17.5%	7.4	12.2%	163,087	966,292			35	1,095	1,129	1,189
					Passby	5.0%	Commercial-Based Customer	0.0%	8.9	12.2%	0	0			0	0	0	0
	All Land Uses		**36,451**	**13,304,615**	***	***	**Subtotal for Group B Vehicles**				**546,072**	**3,191,618**	**212.3**	**1132.9**	**116**	**3,616**	**3,732**	**3,928**
Total for All Vehicles			**36,451**	**13,304,615**	***	***	**Total for All Vehicles**				**11,077,419**	**84,310,369**	***	***	**2,107**	**28,791**	**30,898**	**32,524**

Abbreviations:
CO_2 - carbon dioxide
CO_2e - carbon dioxide equivalent
TDM - Transportation Demand Management Program
URBEMIS - URBan EMISsions modeling software
VMT - vehicle miles traveled
Vehicle Classes (from EMFAC User Guide)
lbs - pounds

Abbreviations cont'd:
Vehicle Classes (from EMFAC User Guide)
LDA - Light Duty Auto (Passenger Cars)
LDT1, LDT2 - Light-Duty Trucks (0-3,750 lbs; 3,751-5,750 lbs)
MDV - Medium Duty Trucks (5,751-8,500 lbs)
LHDT1, LHDT2 - Light-Heavy-Duty Trucks (8,501-10,000 lbs; 10,001-14,000 lbs)
MHDT - Medium-Heavy-Duty Trucks (14,001-33,000 lbs)
HHDT - Heavy-Heavy-Duty Trucks (33,001-60,000 lbs)

Notes:
1. URBEMIS does not contain default settings for "Entertainment Center" and "Studio/Production Support"; "Entertainment Center" was based on URBEMIS default "general land use" settings, and "Studio/Production Support" was based on General Office Building settings.
2. Daily number of trips are based on information provided in the NBC Universal Evolution Plan. Trips are assumed to be one-way.
3. Annual number of trips = Daily number of trips*365
4. % trip type data are URBEMIS defaults for each land use type.
5. Trip purpose categories and the associated trip lengths are URBEMIS defaults for each land use type, with the exception of home-based-work trips, for which a project-specific value was supplied. % trip purpose data are based on URBEMIS defaults and the following assumptions made by ENVIRON a) All home-based trips are performed by Group A vehicles only; b) All commercial-based non-work trips are performed by Group B vehicles only.
6. % trip reduction data are based on information provided in Table 18 of the NBC Universal Evolution Plan Transportation Study.
7. VMT was adjusted to account for diverted and pass-by trips using the following default information from URBEMIS diverted trip length is assumed to be 25% of primary trip length. Pass-by trip length is assumed to be 0.1 miles.
8. Startup emission factors are taken from EMFAC. ENVIRON applied the conservative assumption of 720 minutes (12 hours) between startups. For Group B vehicles, the EMFAC startup emission factors are weighted by truck type based on an estimate of truck activity at the site, consistent with the Air Quality analysis.
9. Running emission factors are taken from EMFAC at 30 mph (URBEMIS default). For Group B vehicles, the EMFAC running emission factors are weighted by truck type based on an estimate of truck activity at the site, consistent with the Air Quality analysis.
10. $CO_2e=CO_2/0.95$ The United States Environmental Protection Agency (USEPA) recommends assuming that CH , N_2O, and HFCs are 5% of emissions on a CO_2e basis.
11. A 20.25% reduction in starting and running emissions was taken to account for the AB 1493 "Pavley Standards" for noncommercial passenger vehicles and light and medium-duty trucks. The percent reduction was based on data for year 2020 in Table 11 of the 2008a ARB report. This reduction was applied to both the startup and running emission factors.
12. An 8.77% reduction in the running emissions of all HHDT and some MHDT was taken to account for the ARB Heavy Duty Vehicle Greenhouse Gas Measure. The percent reduction was based on data for year 2020 in Table XI-2 in the 2008b ARB report. This 8.8% reduction was applied to 37% of MHDT assuming an even distribution of vehicles throughout the MHDT weight class. This reduction was applied to the running emission factor only.

Sources:

Gibson Transportation, Raju Associates, 2010. Transportation Study for the Universal City Evolution Plan Environmental Impact Report.
SCAQMD, 2007. URBEMIS2007 for Windows. November. http //www.urbemis.com/
CARB, 2007. EMFAC2007. http //www.arb.ca.gov/msei/onroad/latest_version.htm
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California Air Resources Board (ARB). 2008b. Public hearing to consider adoption of the regulation to reduce greenhouse gas emissions from heavy-duty vehicles. October. Available at http //www.arb.ca.gov/regact/2008/ghghdv08/ghgisor.pdf.

Table H.6.-3A. CO_2 Emissions in Project Year 2020 (growth only)
NBC Universal
Evolution Plan

Vehicle Class	Land Use		Total Number of Trips completed by All (Group A + Group B) Vehicles		Trip Characteristics					Number of Trips and VMT completed by Group X of Vehicles		Emission Factors		Annual Emissions			
	per Project Transprotation Study	Categories for URBEMIS[1]	Total Daily Trips[2]	Total Annual Trips[3]	Trip Type	% Trip Type[4]	Trip Purpose[5]	% Trip Purpose[5]	Trip Length [by Trip Purpose][5] (miles)	Annual Trips	Annual VMT[6] (miles)	Startup[7] (g/start)	Running[8] (g/mile)	Annual Startup CO_2 Emissions	Annual Running CO_2 Emissions (tonnes)	Total Annual CO_2 Emissions (tonnes)	Total Annual CO_2e Emissions[9] (tonnes)
Group A **Passenger Vehicles** (Vehicles <= 8,500 lbs LDA, LDT1, LDT2, MDV) Pavley Standards Applicable[10]	Mixed-Use Residential Area	Single-Family Housing	17 796	6 495 401	Primary	85.0%	Home-Based Work	32.9%	12.7	2,136,987	23,757,953	237.0	389.2	507	9,246	9,753	10,266
					Diverted	10.0%	Home-Based Shop	18.0%	7.0	1,169,172	7,167,026			277	2,789	3,066	3,228
					Passby	5.0%	Home-Based Other	49.1%	9.5	3 189 242	26 526 521			756	10 323	11 079	11 663
		Strip Mall	2 669	974 324	Primary	45.0%	Commercial-Based Commute	0.0%	13.3	0	0			0	0	0	0
					Diverted	40.0%	Commercial-Based Non-Work	0.0%	7.4	0	0			0	0	0	0
					Passby	15.0%	Commercial-Based Customer	0.0%	8.9	0	0			0	0	0	0
	Entertainment Area	Entertainment Center	1 723	628 895	Primary	90.0%	Commercial-Based Commute	0.0%	13.3	0	0			0	0	0	0
					Diverted	10.0%	Commercial-Based Non-Work	0.0%	7.4	0	0			0	0	0	0
					Passby	0.0%	Commercial-Based Customer	0.0%	8.9	0	0			0	0	0	0
		Hotel	4 460	1 627 900	Primary	60.0%	Commercial-Based Commute	0.0%	13.3	0	0			0	0	0	0
					Diverted	35.0%	Commercial-Based Non-Work	0.0%	7.4	0	0			0	0	0	0
					Passby	5.0%	Commercial-Based Customer	0.0%	8.9	0	0			0	0	0	0
	Business Area	General Office Building	6 895	2 516 675	Primary	75.0%	Commercial-Based Commute	0.0%	13.3	0	0			0	0	0	0
					Diverted	20.0%	Commercial-Based Non-Work	0.0%	7.4	0	0			0	0	0	0
					Passby	5.0%	Commercial-Based Customer	0.0%	8.9	0	0			0	0	0	0
	Studio Area	Studio/Production Support	2 908	1 061 420	Primary	75.0%	Commercial-Based Commute	0.0%	13.3	0	0			0	0	0	0
					Diverted	20.0%	Commercial-Based Non-Work	0.0%	7.4	0	0			0	0	0	0
					Passby	5.0%	Commercial-Based Customer	0.0%	8.9	0	0			0	0	0	0
	All Land Uses		*36,451*	*13,304,615*	***	***	**Subtotal for Group A Vehicles**			**6,495,401**	**57,451,500**	**237.04**	**389.17**	**1,540**	**22,359**	**23,898**	**25,156**
Group B **Commercial Vehicles** (Vehicles > 8,500 lbs LHDT1, LHDT2, MHDT, HHDT) Pavley Standards Not Applicable; Heavy-Duty Standards Applicable for HHDT and some MHDT[11]	Mixed-Use Residential Area	Single-Family Housing	17 796	6 495 401	Primary	85.0%	Home-Based Work	0.0%	12.7	0	0	212.3	1184.8	0	0	0	0
					Diverted	10.0%	Home-Based Shop	0.0%	7.0	0	0			0	0	0	0
					Passby	5.0%	Home-Based Other	0.0%	9.5	0	0			0	0	0	0
		Strip Mall	2 669	974 324	Primary	45.0%	Commercial-Based Commute	0.0%	13.3	0	0			0	0	0	0
					Diverted	40.0%	Commercial-Based Non-Work	1.0%	7.4	9 743	39 801			2	47	49	52
					Passby	15.0%	Commercial-Based Customer	0.0%	8.9	0	0			0	0	0	0
	Entertainment Area	Entertainment Center	1 723	628 895	Primary	90.0%	Commercial-Based Commute	0.0%	13.3	0	0			0	0	0	0
					Diverted	10.0%	Commercial-Based Non-Work	1.0%	7.4	6 289	43 048			1	51	52	55
					Passby	0.0%	Commercial-Based Customer	0.0%	8.9	0	0			0	0	0	0
		Hotel	4 460	1 627 900	Primary	60.0%	Commercial-Based Commute	0.0%	13.3	0	0			0	0	0	0
					Diverted	35.0%	Commercial-Based Non-Work	2.5%	7.4	40,698	207,252			9	246	254	268
					Passby	5.0%	Commercial-Based Customer	0.0%	8.9	0	0			0	0	0	0
	Business Area	General Office Building	6 895	2 516 675	Primary	75.0%	Commercial-Based Commute	0.0%	13.3	0	0			0	0	0	0
					Diverted	20.0%	Commercial-Based Non-Work	17.5%	7.4	440,418	2,609,477			94	3,092	3,185	3,353
					Passby	5.0%	Commercial-Based Customer	0.0%	8.9	0	0			0	0	0	0
	Studio Area	Studio/Production Support	2 908	1 061 420	Primary	75.0%	Commercial-Based Commute	0.0%	13.3	0	0			0	0	0	0
					Diverted	20.0%	Commercial-Based Non-Work	17.5%	7.4	185,749	1,100,560			39	1,304	1,343	1,414
					Passby	5.0%	Commercial-Based Customer	0.0%	8.9	0	0			0	0	0	0
	All Land Uses		*36,451*	*13,304,615*	***	***	**Subtotal for Group B Vehicles**			**682,896**	**4,000,138**	**212.3**	**1184.8**	**145**	**4,739**	**4,884**	**5,141**
Total for All Vehicles			**36,451**	**13,304,615**	***	***	**Total for All Vehicles**			**7,178,298**	**61,451,638**	***	***	**1,685**	**27,098**	**28,782**	**30,297**

Abbreviations:
CO_2 - carbon dioxide
CO_2e - carbon dioxide equivalent
TDM - Transportation Demand Management Program
URBEMIS - URBan EMISsions modeling software
VMT - vehicle miles traveled
Vehicle Classes (from EMFAC User Guide)
lbs - pounds

Abbreviations cont'd:
Vehicle Classes (from EMFAC User Guide)
LDA - Light Duty Auto (Passenger Cars)
LDT1, LDT2 - Light-Duty Trucks (0-3,750 lbs; 3,751-5,750 lbs)
MDV - Medium Duty Trucks (5,751-8,500 lbs)
LHDT1, LHDT2 - Light-Heavy-Duty Trucks (8,501-10,000 lbs; 10,001-14,000 lbs)
MHDT - Medium-Heavy-Duty Trucks (14,001-33,000 lbs)
HHDT - Heavy-Heavy-Duty Trucks (33,001-60,000 lbs)

Notes:
1. URBEMIS does not contain default settings for "Entertainment Center" and "Studio/Production Support"; "Entertainment Center" was based on URBEMIS default "general land use" settings, and "Studio/Production Support" was based on General Office Building settings.
2. Daily number of trips are based on information provided in the NBC Universal Evolution Plan. Trips are assumed to be one-way.
3. Annual number of trips = Daily number of trips*365
4. % trip type data are URBEMIS defaults for each land use type.
5. Trip purpose categories and the associated trip lengths are URBEMIS defaults for each land use type. % trip purpose data are based on URBEMIS defaults and the following assumptions made by ENVIRON a) All home-based trips are performed by Group A vehicles only; b) All commercial-based non-work trips are performed by Group B vehicles only.
6. VMT was adjusted to account for diverted and pass-by trips using the following default information from URBEMIS diverted trip length is assumed to be 25% of primary trip length. Pass-by trip length is assumed to be 0.1 miles.
7. Startup emission factors are taken from EMFAC. ENVIRON applied the conservative assumption of 720 minutes (12 hours) between startups. For Group B vehicles, the EMFAC startup emission factors are weighted by truck type based on an estimate of truck activity at the site, consistent with the Air Quality analysis.
8. Running emission factors are taken from EMFAC at 30 mph (URBEMIS default). For Group B vehicles, the EMFAC running emission factors are weighted by truck type based on an estimate of truck activity at the site, consistent with the Air Quality analysis.
9. $CO_2e=CO_2/0.95$ The United States Environmental Protection Agency (USEPA) recommends assuming that CH, N_2O, and HFCs are 5% of emissions on a CO_2e basis.
10. AB 1493 ("the Pavley Standard") refers to the reduction of GHG emissions from noncommercial passenger vehicles and light and medium-duty trucks of model year 2009 and thereafter, as required by the state of California (see ARB 2008a). The regulated vehicle classes are shown here for comparison purposes only; a reduction in GHG emissions is not applied in this calculation scenario.
11. ARB adopted a regulation to reduce greenhouse gas emissions by improving the fuel efficiency of heavy-duty trucks (see ARB 2008b). The regulated vehicle classes are shown here for comparison purposes only; a reduction in GHG emissions is not applied in this calculation scenario.

Sources:

Gibson Transportation, Raju Associates, 2010. Transportation Study for the Universal City Evolution Plan Environmental Impact Report.
SCAQMD, 2007. URBEMIS2007 for Windows. November. http //www.urbemis.com/
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California Air Resources Board (ARB). 2008b. Public hearing to consider adoption of the regulation to reduce greenhouse gas emissions from heavy-duty vehicles. October. Available at http //www.arb.ca.gov/regact/2008/ghghdv08/ghgisor.pdf.

Table H.6.-3B. CO_2 Emissions (with TDM) in Project Year 2020 (growth only)
NBC Universal
Evolution Plan

Vehicle Class	Land Use		Total Number of Trips completed by All (Group A + Group B) Vehicles		Trip Characteristics						Number of Trips and VMT completed by Group X of Vehicles		Emission Factors		Annual Emissions			
	per Project Transprotation Study	Categories for URBEMIS[1]	Total Daily Trips[2]	Total Annual Trips[3]	Trip Type	% Trip Type[4]	Trip Purpose[5]	% Trip Purpose[5]	Trip Length [by Trip Purpose][5] (miles)	% Trip Reduction due to TDM[6]	Annual Trips	Annual VMT[7] (miles)	Startup[8] (g/start)	Running[9] (g/mile)	Annual Startup CO_2 Emissions (tonnes)	Annual Running CO_2 Emissions (tonnes)	Total Annual CO_2 Emissions (tonnes)	Total Annual CO_2e Emissions[10] (tonnes)
Group A Passenger Vehicles (Vehicles <= 8,500 lbs LDA, LDT1, LDT2, MDV) Pavley Standards Applicable[11]	Mixed-Use Residential Area	Single-Family Housing	17 796	6 495 401	Primary	85.0%	Home-Based Work	32.9%	12.7	21.1%	1 686 083	18 745 025	237.0	389.2	400	7 295	7 695	8 100
					Diverted	10.0%	Home-Based Shop	18.0%	7.0	21.1%	922 477	5 654 783			219	2 201	2 419	2 547
					Passby	5.0%	Home-Based Other	49.1%	9.5	21.1%	2 516 312	20 929 425			596	8 145	8 742	9 202
		Strip Mall	2 669	974 324	Primary	45.0%	Commercial-Based Commute	0.0%	13.3	0.0%	0	0			0	0	0	0
					Diverted	40.0%	Commercial-Based Non-Work	0.0%	7.4	0.0%	0	0			0	0	0	0
					Passby	15.0%	Commercial-Based Customer	0.0%	8.9	0.0%	0	0			0	0	0	0
	Entertainment Area	Entertainment Center	1 723	628 895	Primary	90.0%	Commercial-Based Commute	0.0%	13.3	7.7%	0	0			0	0	0	0
					Diverted	10.0%	Commercial-Based Non-Work	0.0%	7.4	7.7%	0	0			0	0	0	0
					Passby	0.0%	Commercial-Based Customer	0.0%	8.9	4.0%	0	0			0	0	0	0
		Hotel	4 460	1 627 900	Primary	60.0%	Commercial-Based Commute	0.0%	13.3	7.7%	0	0			0	0	0	0
					Diverted	35.0%	Commercial-Based Non-Work	0.0%	7.4	7.7%	0	0			0	0	0	0
					Passby	5.0%	Commercial-Based Customer	0.0%	8.9	4.0%	0	0			0	0	0	0
	Business Area	General Office Building	6 895	2 516 675	Primary	75.0%	Commercial-Based Commute	0.0%	13.3	25.1%	0	0			0	0	0	0
					Diverted	20.0%	Commercial-Based Non-Work	0.0%	7.4	25.1%	0	0			0	0	0	0
					Passby	5.0%	Commercial-Based Customer	0.0%	8.9	25.1%	0	0			0	0	0	0
	Studio Area	Studio/Production Support	2 908	1 061 420	Primary	75.0%	Commercial-Based Commute	0.0%	13.3	12.2%	0	0			0	0	0	0
					Diverted	20.0%	Commercial-Based Non-Work	0.0%	7.4	12.2%	0	0			0	0	0	0
					Passby	5.0%	Commercial-Based Customer	0.0%	8.9	12.2%	0	0			0	0	0	0
	All Land Uses		*36,451*	*13,304,615*	***	***	**Subtotal for Group A Vehicles**				**5,124,872**	**45,329,233**	**237.04**	**389.17**	**1,215**	**17,641**	**18,856**	**19,848**
Group B Commercial Vehicles (Vehicles > 8,500 lbs LHDT1, LHDT2, MHDT, HHDT) Pavley Standards Not Applicable; Heavy-Duty Standards Applicable for HHDT and some MHDT[12]	Mixed-Use Residential Area	Single-Family Housing	17 796	6 495 401	Primary	85.0%	Home-Based Work	0.0%	12.7	21.1%	0	0	212.3	1184.8	0	0	0	0
					Diverted	10.0%	Home-Based Shop	0.0%	7.0	21.1%	0	0			0	0	0	0
					Passby	5.0%	Home-Based Other	0.0%	9.5	21.1%	0	0			0	0	0	0
		Strip Mall	2 669	974 324	Primary	45.0%	Commercial-Based Commute	0.0%	13.3	0.0%	0	0			0	0	0	0
					Diverted	40.0%	Commercial-Based Non-Work	1.0%	7.4	0.0%	9,743	39,801			2	47	49	52
					Passby	15.0%	Commercial-Based Customer	0.0%	8.9	0.0%	0	0			0	0	0	0
	Entertainment Area	Entertainment Center	1 723	628 895	Primary	90.0%	Commercial-Based Commute	0.0%	13.3	7.7%	0	0			0	0	0	0
					Diverted	10.0%	Commercial-Based Non-Work	1.0%	7.4	7.7%	5 805	39 733			1	47	48	51
					Passby	0.0%	Commercial-Based Customer	0.0%	8.9	4.0%	0	0			0	0	0	0
		Hotel	4 460	1 627 900	Primary	60.0%	Commercial-Based Commute	0.0%	13.3	7.7%	0	0			0	0	0	0
					Diverted	35.0%	Commercial-Based Non-Work	2.5%	7.4	7.7%	37,564	191,294			8	227	235	247
					Passby	5.0%	Commercial-Based Customer	0.0%	8.9	4.0%	0	0			0	0	0	0
	Business Area	General Office Building	6 895	2 516 675	Primary	75.0%	Commercial-Based Commute	0.0%	13.3	25.1%	0	0			0	0	0	0
					Diverted	20.0%	Commercial-Based Non-Work	17.5%	7.4	25.1%	329,873	1,954,499			70	2,316	2,386	2,511
					Passby	5.0%	Commercial-Based Customer	0.0%	8.9	25.1%	0	0			0	0	0	0
	Studio Area	Studio/Production Support	2 908	1 061 420	Primary	75.0%	Commercial-Based Commute	0.0%	13.3	12.2%	0	0			0	0	0	0
					Diverted	20.0%	Commercial-Based Non-Work	17.5%	7.4	12.2%	163,087	966,292			35	1,145	1,179	1,242
					Passby	5.0%	Commercial-Based Customer	0.0%	8.9	12.2%	0	0			0	0	0	0
	All Land Uses		*36,451*	*13,304,615*	***	***	**Subtotal for Group B Vehicles**				**546,072**	**3,191,618**	**212.3**	**1184.8**	**116**	**3,781**	**3,897**	**4,102**
Total for All Vehicles			**36,451**	**13,304,615**	***	***	**Total for All Vehicles**				**5,670,944**	**48,520,851**	***	***	**1,331**	**21,422**	**22,753**	**23,950**

Abbreviations:
CO_2 - carbon dioxide
CO_2e - carbon dioxide equivalent
TDM - Transportation Demand Management Program
URBEMIS - URBan EMISsions modeling software
VMT - vehicle miles traveled
Vehicle Classes (from EMFAC User Guide)
lbs - pounds

Abbreviations cont'd:
Vehicle Classes (from EMFAC User Guide)
LDA - Light Duty Auto (Passenger Cars)
LDT1, LDT2 - Light-Duty Trucks (0-3,750 lbs; 3,751-5,750 lbs)
MDV - Medium Duty Trucks (5,751-8,500 lbs)
LHDT1, LHDT2 - Light-Heavy-Duty Trucks (8,501-10,000 lbs; 10,001-14,000 lbs)
MHDT - Medium-Heavy-Duty Trucks (14,001-33,000 lbs)
HHDT - Heavy-Heavy-Duty Trucks (33,001-60,000 lbs)

Notes:
1. URBEMIS does not contain default settings for "Entertainment Center" and "Studio/Production Support"; "Entertainment Center" was based on URBEMIS default "general land use" settings, and "Studio/Production Support" was based on General Office Building settings.
2. Daily number of trips are based on information provided in the NBC Universal Evolution Plan. Trips are assumed to be one-way.
3. Annual number of trips = Daily number of trips*365
4. % trip type data are URBEMIS defaults for each land use type.
5. Trip purpose categories and the associated trip lengths are URBEMIS defaults for each land use type. % trip purpose data are based on URBEMIS defaults and the following assumptions made by ENVIRON a) All home-based trips are performed by Group A vehicles only; b) All commercial-based non-work trips are performed by Group B vehicles only.
6. % trip reduction data are based on information provided in Table 18 of the NBC Universal Evolution Plan Transportation Study.
7. VMT was adjusted to account for diverted and pass-by trips using the following default information from URBEMIS diverted trip length is assumed to be 25% of primary trip length. Pass-by trip length is assumed to be 0.1 miles.
8. Startup emission factors are taken from EMFAC. ENVIRON applied the conservative assumption of 720 minutes (12 hours) between startups. For Group B vehicles, the EMFAC startup emission factors are weighted by truck type based on an estimate of truck activity at the site, consistent with the Air Quality analysis.
9. Running emission factors are taken from EMFAC at 30 mph (URBEMIS default). For Group B vehicles, the EMFAC running emission factors are weighted by truck type based on an estimate of truck activity at the site, consistent with the Air Quality analysis.
10. $CO_2e=CO_2/0.95$ The United States Environmental Protection Agency (USEPA) recommends assuming that CH , N_2O, and HFCs are 5% of emissions on a CO_2e basis.
11. AB 1493 ("the Pavley Standard") refers to the reduction of GHG emissions from noncommercial passenger vehicles and light and medium-duty trucks of model year 2009 and thereafter, as required by the state of California (see ARB 2008a). The regulated vehicle classes are shown here for comparison purposes only; a reduction in GHG emissions is not applied in this calculation scenario.
12. ARB adopted a regulation to reduce greenhouse gas emissions by improving the fuel efficiency of heavy-duty trucks (see ARB 2008b). The regulated vehicle classes are shown here for comparison purposes only; a reduction in GHG emissions is not applied in this calculation scenario.

Sources:

Gibson Transportation, Raju Associates, 2010. Transportation Study for the Universal City Evolution Plan Environmental Impact Report.
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California Air Resources Board (ARB). 2008b. Public hearing to consider adoption of the regulation to reduce greenhouse gas emissions from heavy-duty vehicles. October. Available at http //www.arb.ca.gov/regact/2008/ghghdv08/ghgisor.pdf.

Table H.6.-3C. CO_2 Emissions (with TDM, Pavley, and Heavy-Duty Standards) in Project Year 2020 (growth only)
NBC Universal
Evolution Plan

Vehicle Class	Land Use		Total Number of Trips completed by All (Group A + Group B) Vehicles		Trip Characteristics						Number of Trips and VMT completed by Group X of Vehicles		Emission Factors		Annual Emissions			
	per Project Transprotation Study	Categories for URBEMIS[1]	Total Daily Trips[2]	Total Annual Trips[3]	Trip Type	% Trip Type[4]	Trip Purpose[5]	% Trip Purpose[5]	Trip Length [by Trip Purpose][5] (miles)	% Trip Reduction due to TDM[6]	Annual Trips	Annual VMT[7] (miles)	Startup[8] (g/start)	Running[9] (g/mile)	Annual Startup CO_2 Emissions (tonnes)	Annual Running CO_2 Emissions (tonnes)	Total Annual CO_2 Emissions (tonnes)	Total Annual CO_2e Emissions[10] (tonnes)
Group A **Passenger Vehicles** (Vehicles <= 8,500 lbs LDA, LDT1, LDT2, MDV) Pavley Standards Applicable[11]	Mixed-Use Residential Area	Single-Family Housing	*17 796*	*6 495 401*	Primary	85.0%	Home-Based Work	32.9%	12.7	21.1%	1 686 083	18 745 025	**189.0**	**310.4**	319	5 818	6 136	6 459
					Diverted	10.0%	Home-Based Shop	18.0%	7.0	21.1%	922 477	5 654 783			174	1 755	1 929	2 031
					Passby	5.0%	Home-Based Other	49.1%	9.5	21.1%	2 516 312	20 929 425			476	6 495	6 971	7 338
		Strip Mall	*2 669*	*974 324*	Primary	45.0%	Commercial-Based Commute	0.0%	13.3	0.0%	0	0			0	0	0	0
					Diverted	40.0%	Commercial-Based Non-Work	0.0%	7.4	0.0%	0	0			0	0	0	0
					Passby	15.0%	Commercial-Based Customer	0.0%	8.9	0.0%	0	0			0	0	0	0
	Entertainment Area	Entertainment Center	*1 723*	*628 895*	Primary	90.0%	Commercial-Based Commute	0.0%	13.3	7.7%	0	0			0	0	0	0
					Diverted	10.0%	Commercial-Based Non-Work	0.0%	7.4	7.7%	0	0			0	0	0	0
					Passby	0.0%	Commercial-Based Customer	0.0%	8.9	4.0%	0	0			0	0	0	0
		Hotel	*4 460*	*1 627 900*	Primary	60.0%	Commercial-Based Commute	0.0%	13.3	7.7%	0	0			0	0	0	0
					Diverted	35.0%	Commercial-Based Non-Work	0.0%	7.4	7.7%	0	0			0	0	0	0
					Passby	5.0%	Commercial-Based Customer	0.0%	8.9	4.0%	0	0			0	0	0	0
	Business Area	General Office Building	*6 895*	*2 516 675*	Primary	75.0%	Commercial-Based Commute	0.0%	13.3	25.1%	0	0			0	0	0	0
					Diverted	20.0%	Commercial-Based Non-Work	0.0%	7.4	25.1%	0	0			0	0	0	0
					Passby	5.0%	Commercial-Based Customer	0.0%	8.9	25.1%	0	0			0	0	0	0
	Studio Area	Studio/Production Support	*2 908*	*1 061 420*	Primary	75.0%	Commercial-Based Commute	0.0%	13.3	12.2%	0	0			0	0	0	0
					Diverted	20.0%	Commercial-Based Non-Work	0.0%	7.4	12.2%	0	0			0	0	0	0
					Passby	5.0%	Commercial-Based Customer	0.0%	8.9	12.2%	0	0			0	0	0	0
	All Land Uses		***36,451***	***13,304,615***	***	***	**Subtotal for Group A Vehicles**				**5,124,872**	**45,329,233**	**189.03**	**310.35**	**969**	**14,068**	**15,037**	**15,828**
Group B **Commercial Vehicles** (Vehicles > 8,500 lbs LHDT1, LHDT2, MHDT, HHDT) Pavley Standards Not Applicable; Heavy-Duty Standards Applicable for HHDT and some MHDT[12]	Mixed-Use Residential Area	Single-Family Housing	*17 796*	*6 495 401*	Primary	85.0%	Home-Based Work	0.0%	12.7	21.1%	0	0	**212.3**	**1132.9**	0	0	0	0
					Diverted	10.0%	Home-Based Shop	0.0%	7.0	21.1%	0	0			0	0	0	0
					Passby	5.0%	Home-Based Other	0.0%	9.5	21.1%	0	0			0	0	0	0
		Strip Mall	*2 669*	*974 324*	Primary	45.0%	Commercial-Based Commute	0.0%	13.3	0.0%	0	0			0	0	0	0
					Diverted	40.0%	Commercial-Based Non-Work	1.0%	7.4	0.0%	9,743	39,801			2	45	47	50
					Passby	15.0%	Commercial-Based Customer	0.0%	8.9	0.0%	0	0			0	0	0	0
	Entertainment Area	Entertainment Center	*1 723*	*628 895*	Primary	90.0%	Commercial-Based Commute	0.0%	13.3	7.7%	0	0			0	0	0	0
					Diverted	10.0%	Commercial-Based Non-Work	1.0%	7.4	7.7%	5 805	39 733			1	45	46	49
					Passby	0.0%	Commercial-Based Customer	0.0%	8.9	4.0%	0	0			0	0	0	0
		Hotel	*4 460*	*1 627 900*	Primary	60.0%	Commercial-Based Commute	0.0%	13.3	7.7%	0	0			0	0	0	0
					Diverted	35.0%	Commercial-Based Non-Work	2.5%	7.4	7.7%	37,564	191,294			8	217	225	237
					Passby	5.0%	Commercial-Based Customer	0.0%	8.9	4.0%	0	0			0	0	0	0
	Business Area	General Office Building	*6 895*	*2 516 675*	Primary	75.0%	Commercial-Based Commute	0.0%	13.3	25.1%	0	0			0	0	0	0
					Diverted	20.0%	Commercial-Based Non-Work	17.5%	7.4	25.1%	329,873	1,954,499			70	2,214	2,284	2,405
					Passby	5.0%	Commercial-Based Customer	0.0%	8.9	25.1%	0	0			0	0	0	0
	Studio Area	Studio/Production Support	*2 908*	*1 061 420*	Primary	75.0%	Commercial-Based Commute	0.0%	13.3	12.2%	0	0			0	0	0	0
					Diverted	20.0%	Commercial-Based Non-Work	17.5%	7.4	12.2%	163,087	966,292			35	1,095	1,129	1,189
					Passby	5.0%	Commercial-Based Customer	0.0%	8.9	12.2%	0	0			0	0	0	0
	All Land Uses		***36,451***	***13,304,615***	***	***	**Subtotal for Group B Vehicles**				**546,072**	**3,191,618**	**212.3**	**1132.9**	**116**	**3,616**	**3,732**	**3,928**
Total for All Vehicles			**36,451**	**13,304,615**	***	***	**Total for All Vehicles**				**5,670,944**	**48,520,851**	***	***	**1,085**	**17,684**	**18,768**	**19,756**

Abbreviations:
CO_2 - carbon dioxide
CO_2e - carbon dioxide equivalent
TDM - Transportation Demand Management Program
URBEMIS - URBan EMISsions modeling software
VMT - vehicle miles traveled
Vehicle Classes (from EMFAC User Guide)
lbs - pounds

Abbreviations cont'd:
Vehicle Classes (from EMFAC User Guide)
LDA - Light Duty Auto (Passenger Cars)
LDT1, LDT2 - Light-Duty Trucks (0-3,750 lbs; 3,751-5,750 lbs)
MDV - Medium Duty Trucks (5,751-8,500 lbs)
LHDT1, LHDT2 - Light-Heavy-Duty Trucks (8,501-10,000 lbs; 10,001-14,000 lbs)
MHDT - Medium-Heavy-Duty Trucks (14,001-33,000 lbs)
HHDT - Heavy-Heavy-Duty Trucks (33,001-60,000 lbs)

Notes:
1. URBEMIS does not contain default settings for "Entertainment Center" and "Studio/Production Support"; "Entertainment Center" was based on URBEMIS default "general land use" settings, and "Studio/Production Support" was based on General Office Building settings.
2. Daily number of trips are based on information provided in the NBC Universal Evolution Plan. Trips are assumed to be one-way.
3. Annual number of trips = Daily number of trips*365
4. % trip type data are URBEMIS defaults for each land use type.

5. Trip purpose categories and the associated trip lengths are URBEMIS defaults for each land use type. % trip purpose data are based on URBEMIS defaults and the following assumptions made by ENVIRON a) All home-based trips are performed by Group A vehicles only; b) All commercial-based non-work trips are performed by Group B vehicles only.

6. % trip reduction data are based on information provided in Table 18 of the NBC Universal Evolution Plan Transportation Study.
7. VMT was adjusted to account for diverted and pass-by trips using the following default information from URBEMIS diverted trip length is assumed to be 25% of primary trip length. Pass-by trip length is assumed to be 0.1 miles.
8. Startup emission factors are taken from EMFAC. ENVIRON applied the conservative assumption of 720 minutes (12 hours) between startups. For Group B vehicles, the EMFAC startup emission factors are weighted by truck type based on an estimate of truck activity at the site, consistent with the Air Quality analysis.
9. Running emission factors are taken from EMFAC at 30 mph (URBEMIS default). For Group B vehicles, the EMFAC running emission factors are weighted by truck type based on an estimate of truck activity at the site, consistent with the Air Quality analysis.
10. $CO_2e=CO_2/0.95$ The United States Environmental Protection Agency (USEPA) recommends assuming that CH , N_2O, and HFCs are 5% of emissions on a CO_2e basis.

11. A 20.25% reduction in starting and running emissions was taken to account for the AB 1493 "Pavley Standards" for noncommercial passenger vehicles and light and medium-duty trucks. The percent reduction was based on data for year 2020 in Table 11 of the 2008a ARB report. This reduction was applied to both the startup and running emission factors.

12. An 8.77% reduction in the running emissions of all HHDT and some MHDT was taken to account for the ARB Heavy Duty Vehicle Greenhouse Gas Measure. The percent reduction was based on data for year 2020 in Table XI-2 in the 2008b ARB report. This 8.8% reduction was applied to 37% of MHDT assuming an even distribution of vehicles throughout the MHDT weight class. This reduction was applied to the running emission factor only.

Sources:

Gibson Transportation, Raju Associates, 2010. Transportation Study for the Universal City Evolution Plan Environmental Impact Report.
SCAQMD, 2007. URBEMIS2007 for Windows. November. http //www.urbemis.com/
CARB, 2007. EMFAC2007. http //www.arb.ca.gov/msei/onroad/latest_version.htm
California Air Resources Board (ARB). 2008a. Comparison of Greenhouse Gas Reductions For the United States and Canada Under U.S. CAFE Standards and California Air Resources Board Greenhouse Gas Regulations. Available at http //www.arb.ca.gov/cc/ccms/reports/pavleycafe_reportfeb25_08.pdf.
California Air Resources Board (ARB). 2008b. Public hearing to consider adoption of the regulation to reduce greenhouse gas emissions from heavy-duty vehicles. October. Available at http //www.arb.ca.gov/regact/2008/ghghdv08/ghgisor.pdf.

Table H.6.-4A. CO_2 Emissions in Project Year 2020 (growth only, reduced trip length)
NBC Universal
Evolution Plan

Vehicle Class	Land Use		Total Number of Trips completed by All (Group A + Group B) Vehicles		Trip Characteristics					Number of Trips and VMT completed by Group X of Vehicles		Emission Factors		Annual Emissions			
	per Project Transprotation Study	Categories for URBEMIS[1]	Total Daily Trips[2]	Total Annual Trips[3]	Trip Type	% Trip Type[4]	Trip Purpose[5]	% Trip Purpose[5]	Trip Length [by Trip Purpose][5] (miles)	Annual Trips	Annual VMT[6] (miles)	Startup[7] (g/start)	Running[8] (g/mile)	Annual Startup CO_2 Emissions (tonnes)	Annual Running CO_2 Emissions (tonnes)	Total Annual CO_2 Emissions (tonnes)	Total Annual CO_2e Emissions[9] (tonnes)
Group A Passenger Vehicles (Vehicles <= 8,500 lbs LDA, LDT1, LDT2, MDV) Pavley Standards Applicable[10]	Mixed-Use Residential Area	Single-Family Housing	17 796	6 495 401	Primary	85.0%	Home-Based Work	32.9%	10.3	2,136,987	19,288,979	237.0	389.2	507	7,507	8,013	8,435
					Diverted	10.0%	Home-Based Shop	18.0%	7.0	1 169 172	7 167 026			277	2 789	3 066	3 228
					Passby	5.0%	Home-Based Other	49.1%	9.5	3 189 242	26 526 521			756	10 323	11 079	11 663
		Strip Mall	2 669	974 324	Primary	45.0%	Commercial-Based Commute	0.0%	13.3	0	0			0	0	0	0
					Diverted	40.0%	Commercial-Based Non-Work	0.0%	7.4	0	0			0	0	0	0
					Passby	15.0%	Commercial-Based Customer	0.0%	8.9	0	0			0	0	0	0
	Entertainment Area	Entertainment Center	1 723	628 895	Primary	90.0%	Commercial-Based Commute	0.0%	13.3	0	0			0	0	0	0
					Diverted	10.0%	Commercial-Based Non-Work	0.0%	7.4	0	0			0	0	0	0
					Passby	0.0%	Commercial-Based Customer	0.0%	8.9	0	0			0	0	0	0
		Hotel	4 460	1 627 900	Primary	60.0%	Commercial-Based Commute	0.0%	13.3	0	0			0	0	0	0
					Diverted	35.0%	Commercial-Based Non-Work	0.0%	7.4	0	0			0	0	0	0
					Passby	5.0%	Commercial-Based Customer	0.0%	8.9	0	0			0	0	0	0
	Business Area	General Office Building	6 895	2 516 675	Primary	75.0%	Commercial-Based Commute	0.0%	13.3	0	0			0	0	0	0
					Diverted	20.0%	Commercial-Based Non-Work	0.0%	7.4	0	0			0	0	0	0
					Passby	5.0%	Commercial-Based Customer	0.0%	8.9	0	0			0	0	0	0
	Studio Area	Studio/Production Support	2 908	1 061 420	Primary	75.0%	Commercial-Based Commute	0.0%	13.3	0	0			0	0	0	0
					Diverted	20.0%	Commercial-Based Non-Work	0.0%	7.4	0	0			0	0	0	0
					Passby	5.0%	Commercial-Based Customer	0.0%	8.9	0	0			0	0	0	0
	All Land Uses		*36,451*	*13,304,615*	***	***	**Subtotal for Group A Vehicles**			**6,495,401**	**52,982,526**	**237.04**	**389.17**	**1,540**	**20,619**	**22,159**	**23,325**
Group B Commercial Vehicles (Vehicles > 8,500 lbs LHDT1, LHDT2, MHDT, HHDT) Pavley Standards Not Applicable; Heavy-Duty Standards Applicable for HHDT and some MHDT[11]	Mixed-Use Residential Area	Single-Family Housing	17 796	6 495 401	Primary	85.0%	Home-Based Work	0.0%	10.3	0	0	212.3	1184.8	0	0	0	0
					Diverted	10.0%	Home-Based Shop	0.0%	7.0	0	0			0	0	0	0
					Passby	5.0%	Home-Based Other	0.0%	9.5	0	0			0	0	0	0
		Strip Mall	2 669	974 324	Primary	45.0%	Commercial-Based Commute	0.0%	13.3	0	0			0	0	0	0
					Diverted	40.0%	Commercial-Based Non-Work	1.0%	7.4	9,743	39,801			2	47	49	52
					Passby	15.0%	Commercial-Based Customer	0.0%	8.9	0	0			0	0	0	0
	Entertainment Area	Entertainment Center	1 723	628 895	Primary	90.0%	Commercial-Based Commute	0.0%	13.3	0	0			0	0	0	0
					Diverted	10.0%	Commercial-Based Non-Work	1.0%	7.4	6,289	43,048			1	51	52	55
					Passby	0.0%	Commercial-Based Customer	0.0%	8.9	0	0			0	0	0	0
		Hotel	4 460	1 627 900	Primary	60.0%	Commercial-Based Commute	0.0%	13.3	0	0			0	0	0	0
					Diverted	35.0%	Commercial-Based Non-Work	2.5%	7.4	40,698	207,252			9	246	254	268
					Passby	5.0%	Commercial-Based Customer	0.0%	8.9	0	0			0	0	0	0
	Business Area	General Office Building	6 895	2 516 675	Primary	75.0%	Commercial-Based Commute	0.0%	13.3	0	0			0	0	0	0
					Diverted	20.0%	Commercial-Based Non-Work	17.5%	7.4	440,418	2,609,477			94	3,092	3,185	3,353
					Passby	5.0%	Commercial-Based Customer	0.0%	8.9	0	0			0	0	0	0
	Studio Area	Studio/Production Support	2 908	1 061 420	Primary	75.0%	Commercial-Based Commute	0.0%	13.3	0	0			0	0	0	0
					Diverted	20.0%	Commercial-Based Non-Work	17.5%	7.4	185,749	1,100,560			39	1,304	1,343	1,414
					Passby	5.0%	Commercial-Based Customer	0.0%	8.9	0	0			0	0	0	0
	All Land Uses		*36,451*	*13,304,615*	***	***	**Subtotal for Group B Vehicles**			**682,896**	**4,000,138**	**212.3**	**1184.8**	**145**	**4,739**	**4,884**	**5,141**
Total for All Vehicles			**36,451**	**13,304,615**	***	***	**Total for All Vehicles**			**7,178,298**	**56,982,664**	***	***	**1,685**	**25,359**	**27,043**	**28,467**

Abbreviations:
CO_2 - carbon dioxide
CO_2e - carbon dioxide equivalent
TDM - Transportation Demand Management Program
URBEMIS - URBan EMISsions modeling software
VMT - vehicle miles traveled
Vehicle Classes (from EMFAC User Guide)
lbs - pounds

Abbreviations cont'd:
Vehicle Classes (from EMFAC User Guide)
LDA - Light Duty Auto (Passenger Cars)
LDT1, LDT2 - Light-Duty Trucks (0-3,750 lbs; 3,751-5,750 lbs)
MDV - Medium Duty Trucks (5,751-8,500 lbs)
LHDT1, LHDT2 - Light-Heavy-Duty Trucks (8,501-10,000 lbs; 10,001-14,000 lbs)
MHDT - Medium-Heavy-Duty Trucks (14,001-33,000 lbs)
HHDT - Heavy-Heavy-Duty Trucks (33,001-60,000 lbs)

Notes:
1. URBEMIS does not contain default settings for "Entertainment Center" and "Studio/Production Support"; "Entertainment Center" was based on URBEMIS default "general land use" settings, and "Studio/Production Support" was based on General Office Building settings.
2. Daily number of trips are based on information provided in the NBC Universal Evolution Plan. Trips are assumed to be one-way.
3. Annual number of trips = Daily number of trips*365
4. % trip type data are URBEMIS defaults for each land use type.
5. Trip purpose categories and the associated trip lengths are URBEMIS defaults for each land use type, with the exception of home-based-work trips, for which a project-specific value was supplied. % trip purpose data are based on URBEMIS defaults and the following assumptions made by ENVIRON a) All home-based trij vehicles only; b) All commercial-based non-work trips are performed by Group B vehicles only.
6. VMT was adjusted to account for diverted and pass-by trips using the following default information from URBEMIS diverted trip length is assumed to be 25% of primary trip length. Pass-by trip length is assumed to be 0.1 miles.
7. Startup emission factors are taken from EMFAC. ENVIRON applied the conservative assumption of 720 minutes (12 hours) between startups. For Group B vehicles, the EMFAC startup emission factors are weighted by truck type based on an estimate of truck activity at the site, consistent with the Air Quality analysis.
8. Running emission factors are taken from EMFAC at 30 mph (URBEMIS default). For Group B vehicles, the EMFAC running emission factors are weighted by truck type based on an estimate of truck activity at the site, consistent with the Air Quality analysis.
9. $CO_2e=CO_2/0.95$ The United States Environmental Protection Agency (USEPA) recommends assuming that CH_4, N_2O, and HFCs are 5% of emissions on a CO_2e basis.
10. AB 1493 ("the Pavley Standard") refers to the reduction of GHG emissions from noncommercial passenger vehicles and light and medium-duty trucks of model year 2009 and thereafter, as required by the state of California (see ARB 2008a). The regulated vehicle classes are shown here for comparison purposes only; a reduction in GHG emissions is not applied in this calculation scenario.
11. ARB adopted a regulation to reduce greenhouse gas emissions by improving the fuel efficiency of heavy-duty trucks (see ARB 2008b). The regulated vehicle classes are shown here for comparison purposes only; a reduction in GHG emissions is not applied in this calculation scenario.

Sources:

Gibson Transportation, Raju Associates, 2010. Transportation Study for the Universal City Evolution Plan Environmental Impact Report.
SCAQMD, 2007. URBEMIS2007 for Windows. November. http //www.urbemis.com/
CARB, 2007. EMFAC2007. http //www.arb.ca.gov/msei/onroad/latest_version.htm
California Air Resources Board (ARB). 2008a. Comparison of Greenhouse Gas Reductions For the United States and Canada Under U.S. CAFE Standards and California Air Resources Board Greenhouse Gas Regulations. Available at http //www.arb.ca.gov/cc/ccms/reports/pavleycafe_reportfeb25_08.pdf.
California Air Resources Board (ARB). 2008b. Public hearing to consider adoption of the regulation to reduce greenhouse gas emissions from heavy-duty vehicles. October. Available at http //www.arb.ca.gov/regact/2008/ghghdv08/ghgisor.pdf.

Table H.6.-4B. CO_2 Emissions (with TDM) in Project Year 2020 (growth only, reduced trip length)
NBC Universal
Evolution Plan

Vehicle Class	Land Use		Total Number of Trips completed by All (Group A + Group B) Vehicles		Trip Characteristics					Number of Trips and VMT completed by Group X of Vehicles		Emission Factors		Annual Emissions			
	per Project Transprotation Study	Categories for URBEMIS[1]	Total Daily Trips[2]	Total Annual Trips[3]	Trip Type	% Trip Type[4]	Trip Purpose[5]	% Trip Purpose[5]	Trip Length [by Trip Purpose][5] (miles)	% Trip Reduction due to TDM[6]	Annual Trips	Annual VMT[7] (miles)	Startup[8] (g/start)	Running[9] (g/mile)	Annual Startup CO_2 Emissions (tonnes)	Annual Running CO_2 Emissions (tonnes)	Total Annual CO_2 Emissions (tonnes)	Total Annual CO_2e Emissions[10] (tonnes)
Group A **Passenger Vehicles** (Vehicles <= 8,500 lbs LDA, LDT1, LDT2, MDV) Pavley Standards Applicable[11]	Mixed-Use Residential Area	Single-Family Housing	17 796	6 495 401	Primary	85.0%	Home-Based Work	32.9%	10.3	21.1%	1 686 083	15 219 005	237.0	389.2	400	5 923	6 323	6 655
					Diverted	10.0%	Home-Based Shop	18.0%	7.0	21.1%	922,477	5,654,783			219	2,201	2,419	2,547
					Passby	5.0%	Home-Based Other	49.1%	9.5	21.1%	2,516,312	20,929,425			596	8,145	8,742	9,202
		Strip Mall	2 669	974 324	Primary	45.0%	Commercial-Based Commute	0.0%	13.3	0.0%	0	0			0	0	0	0
					Diverted	40.0%	Commercial-Based Non-Work	0.0%	7.4	0.0%	0	0			0	0	0	0
					Passby	15.0%	Commercial-Based Customer	0.0%	8.9	0.0%	0	0			0	0	0	0
	Entertainment Area	Entertainment Center	1 723	628 895	Primary	90.0%	Commercial-Based Commute	0.0%	13.3	7.7%	0	0			0	0	0	0
					Diverted	10.0%	Commercial-Based Non-Work	0.0%	7.4	7.7%	0	0			0	0	0	0
					Passby	0.0%	Commercial-Based Customer	0.0%	8.9	4.0%	0	0			0	0	0	0
		Hotel	4 460	1 627 900	Primary	60.0%	Commercial-Based Commute	0.0%	13.3	7.7%	0	0			0	0	0	0
					Diverted	35.0%	Commercial-Based Non-Work	0.0%	7.4	7.7%	0	0			0	0	0	0
					Passby	5.0%	Commercial-Based Customer	0.0%	8.9	4.0%	0	0			0	0	0	0
	Business Area	General Office Building	6 895	2 516 675	Primary	75.0%	Commercial-Based Commute	0.0%	13.3	25.1%	0	0			0	0	0	0
					Diverted	20.0%	Commercial-Based Non-Work	0.0%	7.4	25.1%	0	0			0	0	0	0
					Passby	5.0%	Commercial-Based Customer	0.0%	8.9	25.1%	0	0			0	0	0	0
	Studio Area	Studio/Production Support	2 908	1 061 420	Primary	75.0%	Commercial-Based Commute	0.0%	13.3	12.2%	0	0			0	0	0	0
					Diverted	20.0%	Commercial-Based Non-Work	0.0%	7.4	12.2%	0	0			0	0	0	0
					Passby	5.0%	Commercial-Based Customer	0.0%	8.9	12.2%	0	0			0	0	0	0
	All Land Uses		36,451	13,304,615	***	***	**Subtotal for Group A Vehicles**				5,124,872	41,803,213	237.04	389.17	1,215	16,269	17,484	18,404
Group B **Commercial Vehicles** (Vehicles > 8,500 lbs LHDT1, LHDT2, MHDT, HHDT) Pavley Standards Not Applicable; Heavy-Duty Standards Applicable for HHD and some MHDT[12]	Mixed-Use Residential Area	Single-Family Housing	17 796	6 495 401	Primary	85.0%	Home-Based Work	0.0%	10.3	21.1%	0	0	212.3	1184.8	0	0	0	0
					Diverted	10.0%	Home-Based Shop	0.0%	7.0	21.1%	0	0			0	0	0	0
					Passby	5.0%	Home-Based Other	0.0%	9.5	21.1%	0	0			0	0	0	0
		Strip Mall	2 669	974 324	Primary	45.0%	Commercial-Based Commute	0.0%	13.3	0.0%	0	0			0	0	0	0
					Diverted	40.0%	Commercial-Based Non-Work	1.0%	7.4	0.0%	9,743	39,801			2	47	49	52
					Passby	15.0%	Commercial-Based Customer	0.0%	8.9	0.0%	0	0			0	0	0	0
	Entertainment Area	Entertainment Center	1 723	628 895	Primary	90.0%	Commercial-Based Commute	0.0%	13.3	7.7%	0	0			0	0	0	0
					Diverted	10.0%	Commercial-Based Non-Work	1.0%	7.4	7.7%	5,805	39,733			1	47	48	51
					Passby	0.0%	Commercial-Based Customer	0.0%	8.9	4.0%	0	0			0	0	0	0
		Hotel	4 460	1 627 900	Primary	60.0%	Commercial-Based Commute	0.0%	13.3	7.7%	0	0			0	0	0	0
					Diverted	35.0%	Commercial-Based Non-Work	2.5%	7.4	7.7%	37,564	191,294			8	227	235	247
					Passby	5.0%	Commercial-Based Customer	0.0%	8.9	4.0%	0	0			0	0	0	0
	Business Area	General Office Building	6 895	2 516 675	Primary	75.0%	Commercial-Based Commute	0.0%	13.3	25.1%	0	0			0	0	0	0
					Diverted	20.0%	Commercial-Based Non-Work	17.5%	7.4	25.1%	329,873	1,954,499			70	2,316	2,386	2,511
					Passby	5.0%	Commercial-Based Customer	0.0%	8.9	25.1%	0	0			0	0	0	0
	Studio Area	Studio/Production Support	2 908	1 061 420	Primary	75.0%	Commercial-Based Commute	0.0%	13.3	12.2%	0	0			0	0	0	0
					Diverted	20.0%	Commercial-Based Non-Work	17.5%	7.4	12.2%	163 087	966 292			35	1 145	1 179	1 242
					Passby	5.0%	Commercial-Based Customer	0.0%	8.9	12.2%	0	0			0	0	0	0
	All Land Uses		36,451	13,304,615	***	***	**Subtotal for Group B Vehicles**				546,072	3,191,618	212.3	1184.8	116	3,781	3,897	4,102
Total for All Vehicles			36,451	13,304,615	***	***	**Total for All Vehicles**				5,670,944	44,994,831	***	***	1,331	20,050	21,381	22,506

Abbreviations:
CO_2 - carbon dioxide
CO_2e - carbon dioxide equivalent
TDM - Transportation Demand Management Program
URBEMIS - URBan EMISsions modeling software
VMT - vehicle miles traveled
Vehicle Classes (from EMFAC User Guide)
lbs - pounds

Abbreviations cont'd:
Vehicle Classes (from EMFAC User Guide)
LDA - Light Duty Auto (Passenger Cars)
LDT1, LDT2 - Light-Duty Trucks (0-3,750 lbs; 3,751-5,750 lbs)
MDV - Medium Duty Trucks (5,751-8,500 lbs)
LHDT1, LHDT2 - Light-Heavy-Duty Trucks (8,501-10,000 lbs; 10,001-14,000 lbs)
MHDT - Medium-Heavy-Duty Trucks (14,001-33,000 lbs)
HHDT - Heavy-Heavy-Duty Trucks (33,001-60,000 lbs)

Notes:
1. URBEMIS does not contain default settings for "Entertainment Center" and "Studio/Production Support"; "Entertainment Center" was based on URBEMIS default "general land use" settings, and "Studio/Production Support" was based on General Office Building settings.
2. Daily number of trips are based on information provided in the NBC Universal Evolution Plan. Trips are assumed to be one-way.
3. Annual number of trips = Daily number of trips*365
4. % trip type data are URBEMIS defaults for each land use type.
5. Trip purpose categories and the associated trip lengths are URBEMIS defaults for each land use type, with the exception of home-based-work trips, for which a project-specific value was supplied. % trip purpose data are based on URBEMIS defaults and the following assumptions made by ENVIRON a) All home-based trips are performed by Group A vehicles only; b) All commercial-based non-work trips are performed by Group B vehicles only.
6. % trip reduction data are based on information provided in Table 18 of the NBC Universal Evolution Plan Transportation Study.
7. VMT was adjusted to account for diverted and pass-by trips using the following default information from URBEMIS diverted trip length is assumed to be 25% of primary trip length. Pass-by trip length is assumed to be 0.1 miles.
8. Startup emission factors are taken from EMFAC. ENVIRON applied the conservative assumption of 720 minutes (12 hours) between startups. For Group B vehicles, the EMFAC startup emission factors are weighted by truck type based on an estimate of truck activity at the site, consistent with the Air Quality analysis.
9. Running emission factors are taken from EMFAC at 30 mph (URBEMIS default). For Group B vehicles, the EMFAC running emission factors are weighted by truck type based on an estimate of truck activity at the site, consistent with the Air Quality analysis.
10. $CO_2e=CO_2/0.95$ The United States Environmental Protection Agency (USEPA) recommends assuming that CH, N_2O, and HFCs are 5% of emissions on a CO_2e basis.
11. AB 1493 ("the Pavley Standard") refers to the reduction of GHG emissions from noncommercial passenger vehicles and light and medium-duty trucks of model year 2009 and thereafter, as required by the state of California (see ARB 2008a). The regulated vehicle classes are shown here for comparison purposes only; a reduction in GHG emissions is not applied in this calculation scenario.
12. ARB adopted a regulation to reduce greenhouse gas emissions by improving the fuel efficiency of heavy-duty trucks (see ARB 2008b). The regulated vehicle classes are shown here for comparison purposes only; a reduction in GHG emissions is not applied in this calculation scenario.

Sources:

Gibson Transportation, Raju Associates, 2010. Transportation Study for the Universal City Evolution Plan Environmental Impact Report.
SCAQMD, 2007. URBEMIS2007 for Windows. November. http //www.urbemis.com/
CARB, 2007. EMFAC2007. http //www.arb.ca.gov/msei/onroad/latest_version.htm
California Air Resources Board (ARB). 2008a. Comparison of Greenhouse Gas Reductions For the United States and Canada Under U.S. CAFE Standards and California Air Resources Board Greenhouse Gas Regulations. Available at http //www.arb.ca.gov/cc/ccms/reports/pavleycafe_reportfeb25_08.pdf.
California Air Resources Board (ARB). 2008b. Public hearing to consider adoption of the regulation to reduce greenhouse gas emissions from heavy-duty vehicles. October. Available at http //www.arb.ca.gov/regact/2008/ghghdv08/ghgisor.pdf.

Table H.6.-4C. CO_2 Emissions (with TDM, Pavley, and Heavy-Duty Standards) in Project Year 2020 (growth only, reduced trip length)
NBC Universal
Evolution Plan

Vehicle Class	Land Use		Total Number of Trips completed by All (Group A + Group B) Vehicles		Trip Characteristics						Number of Trips and VMT completed by Group X of Vehicles		Emission Factors		Annual Emissions			
	per Project Transprotation Study	Categories for URBEMIS[1]	Total Daily Trips[2]	Total Annual Trips[3]	Trip Type	% Trip Type[4]	Trip Purpose[5]	% Trip Purpose[5]	Trip Length [by Trip Purpose][5] (miles)	% Trip Reduction due to TDM[6]	Annual Trips	Annual VMT[7] (miles)	Startup[8] (g/start)	Running[9] (g/mile)	Annual Startup CO_2 Emissions (tonnes)	Annual Running CO_2 Emissions (tonnes)	Total Annual CO_2 Emissions (tonnes)	Total Annual CO_2e Emissions[10] (tonnes)
Group A **Passenger Vehicles** (Vehicles <= 8,500 lbs LDA, LDT1, LDT2, MDV) Pavley Standards Applicable[11]	Mixed-Use Residential Area	Single-Family Housing	17 796	6 495 401	Primary	85.0%	Home-Based Work	32.9%	10.3	21.1%	1,686,083	15,219,005	189.0	310.4	319	4,723	5,042	5,307
					Diverted	10.0%	Home-Based Shop	18.0%	7.0	21.1%	922,477	5,654,783			174	1,755	1,929	2,031
					Passby	5.0%	Home-Based Other	49.1%	9.5	21.1%	2 516 312	20 929 425			476	6 495	6 971	7 338
		Strip Mall	2 669	974 324	Primary	45.0%	Commercial-Based Commute	0.0%	13.3	0.0%	0	0			0	0	0	0
					Diverted	40.0%	Commercial-Based Non-Work	0.0%	7.4	0.0%	0	0			0	0	0	0
					Passby	15.0%	Commercial-Based Customer	0.0%	8.9	0.0%	0	0			0	0	0	0
	Entertainment Area	Entertainment Center	1 723	628 895	Primary	90.0%	Commercial-Based Commute	0.0%	13.3	7.7%	0	0			0	0	0	0
					Diverted	10.0%	Commercial-Based Non-Work	0.0%	7.4	7.7%	0	0			0	0	0	0
					Passby	0.0%	Commercial-Based Customer	0.0%	8.9	4.0%	0	0			0	0	0	0
		Hotel	4 460	1 627 900	Primary	60.0%	Commercial-Based Commute	0.0%	13.3	7.7%	0	0			0	0	0	0
					Diverted	35.0%	Commercial-Based Non-Work	0.0%	7.4	7.7%	0	0			0	0	0	0
					Passby	5.0%	Commercial-Based Customer	0.0%	8.9	4.0%	0	0			0	0	0	0
	Business Area	General Office Building	6 895	2 516 675	Primary	75.0%	Commercial-Based Commute	0.0%	13.3	25.1%	0	0			0	0	0	0
					Diverted	20.0%	Commercial-Based Non-Work	0.0%	7.4	25.1%	0	0			0	0	0	0
					Passby	5.0%	Commercial-Based Customer	0.0%	8.9	25.1%	0	0			0	0	0	0
	Studio Area	Studio/Production Support	2 908	1 061 420	Primary	75.0%	Commercial-Based Commute	0.0%	13.3	12.2%	0	0			0	0	0	0
					Diverted	20.0%	Commercial-Based Non-Work	0.0%	7.4	12.2%	0	0			0	0	0	0
					Passby	5.0%	Commercial-Based Customer	0.0%	8.9	12.2%	0	0			0	0	0	0
	All Land Uses		*36,451*	*13,304,615*	***	***	**Subtotal for Group A Vehicles**				**5,124,872**	**41,803,213**	**189.03**	**310.35**	**969**	**12,974**	**13,942**	**14,676**
Group B **Commercial Vehicles** (Vehicles > 8,500 lbs LHDT1, LHDT2, MHDT, HHDT) Pavley Standards Not Applicable; Heavy-Duty Standards Applicable for HHDT and some MHDT[12]	Mixed-Use Residential Area	Single-Family Housing	17 796	6 495 401	Primary	85.0%	Home-Based Work	0.0%	10.3	21.1%	0	0	212.3	1132.9	0	0	0	0
					Diverted	10.0%	Home-Based Shop	0.0%	7.0	21.1%	0	0			0	0	0	0
					Passby	5.0%	Home-Based Other	0.0%	9.5	21.1%	0	0			0	0	0	0
		Strip Mall	2 669	974 324	Primary	45.0%	Commercial-Based Commute	0.0%	13.3	0.0%	0	0			0	0	0	0
					Diverted	40.0%	Commercial-Based Non-Work	1.0%	7.4	0.0%	9,743	39,801			2	45	47	50
					Passby	15.0%	Commercial-Based Customer	0.0%	8.9	0.0%	0	0			0	0	0	0
	Entertainment Area	Entertainment Center	1 723	628 895	Primary	90.0%	Commercial-Based Commute	0.0%	13.3	7.7%	0	0			0	0	0	0
					Diverted	10.0%	Commercial-Based Non-Work	1.0%	7.4	7.7%	5,805	39,733			1	45	46	49
					Passby	0.0%	Commercial-Based Customer	0.0%	8.9	4.0%	0	0			0	0	0	0
		Hotel	4 460	1 627 900	Primary	60.0%	Commercial-Based Commute	0.0%	13.3	7.7%	0	0			0	0	0	0
					Diverted	35.0%	Commercial-Based Non-Work	2.5%	7.4	7.7%	37 564	191 294			8	217	225	237
					Passby	5.0%	Commercial-Based Customer	0.0%	8.9	4.0%	0	0			0	0	0	0
	Business Area	General Office Building	6 895	2 516 675	Primary	75.0%	Commercial-Based Commute	0.0%	13.3	25.1%	0	0			0	0	0	0
					Diverted	20.0%	Commercial-Based Non-Work	17.5%	7.4	25.1%	329,873	1,954,499			70	2,214	2,284	2,405
					Passby	5.0%	Commercial-Based Customer	0.0%	8.9	25.1%	0	0			0	0	0	0
	Studio Area	Studio/Production Support	2 908	1 061 420	Primary	75.0%	Commercial-Based Commute	0.0%	13.3	12.2%	0	0			0	0	0	0
					Diverted	20.0%	Commercial-Based Non-Work	17.5%	7.4	12.2%	163 087	966 292			35	1 095	1 129	1 189
					Passby	5.0%	Commercial-Based Customer	0.0%	8.9	12.2%	0	0			0	0	0	0
	All Land Uses		*36,451*	*13,304,615*	***	***	**Subtotal for Group B Vehicles**				**546,072**	**3,191,618**	**212.3**	**1132.9**	**116**	**3,616**	**3,732**	**3,928**
Total for All Vehicles			**36,451**	**13,304,615**	***	***	**Total for All Vehicles**				**5,670,944**	**44,994,831**	***	***	**1,085**	**16,589**	**17,674**	**18,604**

Abbreviations:
CO_2 - carbon dioxide
CO_2e - carbon dioxide equivalent
TDM - Transportation Demand Management Program
URBEMIS - URBan EMISsions modeling software
VMT - vehicle miles traveled
Vehicle Classes (from EMFAC User Guide)
lbs - pounds

Abbreviations cont'd:
Vehicle Classes (from EMFAC User Guide)
LDA - Light Duty Auto (Passenger Cars)
LDT1, LDT2 - Light-Duty Trucks (0-3,750 lbs; 3,751-5,750 lbs)
MDV - Medium Duty Trucks (5,751-8,500 lbs)
LHDT1, LHDT2 - Light-Heavy-Duty Trucks (8,501-10,000 lbs; 10,001-14,000 lbs)
MHDT - Medium-Heavy-Duty Trucks (14,001-33,000 lbs)
HHDT - Heavy-Heavy-Duty Trucks (33,001-60,000 lbs)

Notes:
1. URBEMIS does not contain default settings for "Entertainment Center" and "Studio/Production Support"; "Entertainment Center" was based on URBEMIS default "general land use" settings, and "Studio/Production Support" was based on General Office Building settings.
2. Daily number of trips are based on information provided in the NBC Universal Evolution Plan. Trips are assumed to be one-way.
3. Annual number of trips = Daily number of trips*365
4. % trip type data are URBEMIS defaults for each land use type.
5. Trip purpose categories and the associated trip lengths are URBEMIS defaults for each land use type, with the exception of home-based-work trips, for which a project-specific value was supplied. % trip purpose data are based on URBEMIS defaults and the following assumptions made by ENVIRON a) All home-based trips are performed by Group A vehicles only; b) All commercial-based non-work trips are performed by Group B vehicles only.
6. % trip reduction data are based on information provided in Table 18 of the NBC Universal Evolution Plan Transportation Study.
7. VMT was adjusted to account for diverted and pass-by trips using the following default information from URBEMIS diverted trip length is assumed to be 25% of primary trip length. Pass-by trip length is assumed to be 0.1 miles.
8. Startup emission factors are taken from EMFAC. ENVIRON applied the conservative assumption of 720 minutes (12 hours) between startups. For Group B vehicles, the EMFAC startup emission factors are weighted by truck type based on an estimate of truck activity at the site, consistent with the Air Quality analysis.
9. Running emission factors are taken from EMFAC at 30 mph (URBEMIS default). For Group B vehicles, the EMFAC running emission factors are weighted by truck type based on an estimate of truck activity at the site, consistent with the Air Quality analysis.
10. $CO_2e=CO_2/0.95$ The United States Environmental Protection Agency (USEPA) recommends assuming that CH , N_2O, and HFCs are 5% of emissions on a CO_2e basis.

11. A 20.25% reduction in starting and running emissions was taken to account for the AB 1493 "Pavley Standards" for noncommercial passenger vehicles and light and medium-duty trucks. The percent reduction was based on data for year 2020 in Table 11 of the 2008a ARB report. This reduction was applied to both the startup and running emission factors.

12. An 8.77% reduction in the running emissions of all HHDT and some MHDT was taken to account for the ARB Heavy Duty Vehicle Greenhouse Gas Measure. The percent reduction was based on data for year 2020 in Table XI-2 in the 2008b ARB report. This 8.8% reduction was applied to 37% of MHDT assuming an even distribution of vehicles throughout the MHDT weight class. This reduction was applied to the running emission factor only.

Sources:

Gibson Transportation, Raju Associates, 2010. Transportation Study for the Universal City Evolution Plan Environmental Impact Report.
SCAQMD, 2007. URBEMIS2007 for Windows. November. http //www.urbemis.com/
CARB, 2007. EMFAC2007. http //www.arb.ca.gov/msei/onroad/latest_version.htm
California Air Resources Board (ARB). 2008a. Comparison of Greenhouse Gas Reductions For the United States and Canada Under U.S. CAFE Standards and California Air Resources Board Greenhouse Gas Regulations. Available at http //www.arb.ca.gov/cc/ccms/reports/pavleycafe_reportfeb25_08.pdf.
California Air Resources Board (ARB). 2008b. Public hearing to consider adoption of the regulation to reduce greenhouse gas emissions from heavy-duty vehicles. October. Available at http //www.arb.ca.gov/regact/2008/ghghdv08/ghgisor.pdf.

Table H.7.-1A. CO_2 Emissions in Project Year 2020 (Full Site - all)
NBC Universal
Evolution Plan

Vehicle Class	Land Use		*Total Number of Trips completed by All (Group A + Group B) Vehicles*		Trip Characteristics						Number of Trips and VMT completed by Group X of Vehicles		Emission Factors		Annual Emissions			
	per Project Transprotation Study	Categories for URBEMIS[1]	*Total Daily Trips*[2]	*Total Annual Trips*[3]	Trip Type	% Trip Type[4]	Trip Purpose[5]	% Trip Purpose[5]	Trip Length [by Trip Purpose][5] (miles)		Annual Trips	Annual VMT[6] (miles)	Startup[7] (g/start)	Running[8] (g/mile)	Annual Startup CO_2 Emissions (tonnes)	Annual Running CO_2 Emissions (tonnes)	Total Annual CO_2 Emissions (tonnes)	Total Annual CO_2e Emissions[9] (tonnes)
Group A **Passenger Vehicles** (Vehicles <= 8,500 lbs LDA, LDT1, LDT2, MDV) Pavley Standards Applicable[10]	Mixed-Use Residential Area	Single-Family Housing	*17 796*	*6 495 401*	Primary	85.0%	Home-Based Work	32.9%	12.7		2,136,987	23,757,953	237.0	389.2	507	9,246	9,753	10,266
					Diverted	10.0%	Home-Based Shop	18.0%	7.0		1 169 172	7 167 026			277	2 789	3 066	3 228
					Passby	5.0%	Home-Based Other	49.1%	9.5		3 189 242	26 526 521			756	10 323	11 079	11 663
		Strip Mall	*2 669*	*974 324*	Primary	45.0%	Commercial-Based Commute	2.0%	13.3		19,486	142,836			5	56	60	63
					Diverted	40.0%	Commercial-Based Non-Work	0.0%	7.4		0	0			0	0	0	0
					Passby	15.0%	Commercial-Based Customer	97.0%	8.9		945 094	4 640 411			224	1 806	2 030	2 137
	Entertainment Area	Entertainment Center	*28 259*	*10 314 535*	Primary	90.0%	Commercial-Based Commute	2.0%	13.3		206,291	2,537,891			49	988	1,037	1,091
					Diverted	10.0%	Commercial-Based Non-Work	0.0%	7.4		0	0			0	0	0	0
					Passby	0.0%	Commercial-Based Customer	97.0%	8.9		10,005,099	82,366,977			2,372	32,055	34,427	36,239
		Hotel	*4 460*	*1 627 900*	Primary	60.0%	Commercial-Based Commute	5.0%	13.3		81 395	744 663			19	290	309	325
					Diverted	35.0%	Commercial-Based Non-Work	0.0%	7.4		0	0			0	0	0	0
					Passby	5.0%	Commercial-Based Customer	92.5%	8.9		1,505,808	9,221,189			357	3,589	3,946	4,153
	Business Area	General Office Building	*16 630*	*6 069 950*	Primary	75.0%	Commercial-Based Commute	35.0%	13.3		2 124 483	22 615 116			504	8 801	9 305	9 795
					Diverted	20.0%	Commercial-Based Non-Work	0.0%	7.4		0	0			0	0	0	0
					Passby	5.0%	Commercial-Based Customer	47.5%	8.9		2,883,226	20,542,987			683	7,995	8,678	9,135
	Studio Area	Studio/Production Support	*11 520*	*4 204 800*	Primary	75.0%	Commercial-Based Commute	35.0%	13.3		1,471,680	15,666,034			349	6,097	6,446	6,785
					Diverted	20.0%	Commercial-Based Non-Work	0.0%	7.4		0	0			0	0	0	0
					Passby	5.0%	Commercial-Based Customer	47.5%	8.9		1,997,280	14,230,620			473	5,538	6,012	6,328
	All Land Uses		***81,334***	***29,686,910***	***	***	**Subtotal for Group A Vehicles**				**27,735,243**	**230,160,224**	**237.04**	**389.17**	**6,574**	**89,572**	**96,147**	**101,207**
Group B **Commercial Vehicles** (Vehicles > 8,500 lbs LHDT1, LHDT2, MHDT, HHDT) Pavley Standards Not Applicable; Heavy-Duty Standards Applicable for HHDT and some MHDT[11]	Mixed-Use Residential Area	Single-Family Housing	*17 796*	*6 495 401*	Primary	85.0%	Home-Based Work	0.0%	12.7		0	0	212.3	1184.8	0	0	0	0
					Diverted	10.0%	Home-Based Shop	0.0%	7.0		0	0			0	0	0	0
					Passby	5.0%	Home-Based Other	0.0%	9.5		0	0			0	0	0	0
		Strip Mall	*2 669*	*974 324*	Primary	45.0%	Commercial-Based Commute	0.0%	13.3		0	0			0	0	0	0
					Diverted	40.0%	Commercial-Based Non-Work	1.0%	7.4		9,743	39,801			2	47	49	52
					Passby	15.0%	Commercial-Based Customer	0.0%	8.9		0	0			0	0	0	0
	Entertainment Area	Entertainment Center	*28 259*	*10 314 535*	Primary	90.0%	Commercial-Based Commute	0.0%	13.3		0	0			0	0	0	0
					Diverted	10.0%	Commercial-Based Non-Work	1.0%	7.4		103,145	706,030			22	836	858	904
					Passby	0.0%	Commercial-Based Customer	0.0%	8.9		0	0			0	0	0	0
		Hotel	*4 460*	*1 627 900*	Primary	60.0%	Commercial-Based Commute	0.0%	13.3		0	0			0	0	0	0
					Diverted	35.0%	Commercial-Based Non-Work	2.5%	7.4		40,698	207,252			9	246	254	268
					Passby	5.0%	Commercial-Based Customer	0.0%	8.9		0	0			0	0	0	0
	Business Area	General Office Building	*16 630*	*6 069 950*	Primary	75.0%	Commercial-Based Commute	0.0%	13.3		0	0			0	0	0	0
					Diverted	20.0%	Commercial-Based Non-Work	17.5%	7.4		1,062,241	6,293,779			226	7,457	7,682	8,086
					Passby	5.0%	Commercial-Based Customer	0.0%	8.9		0	0			0	0	0	0
	Studio Area	Studio/Production Support	*11 520*	*4 204 800*	Primary	75.0%	Commercial-Based Commute	0.0%	13.3		0	0			0	0	0	0
					Diverted	20.0%	Commercial-Based Non-Work	17.5%	7.4		735,840	4,359,852			156	5,165	5,322	5,602
					Passby	5.0%	Commercial-Based Customer	0.0%	8.9		0	0			0	0	0	0
	All Land Uses		***81,334***	***29,686,910***	***	***	**Subtotal for Group B Vehicles**				**1,951,667**	**11,606,714**	**212.3**	**1184.8**	**414**	**13,751**	**14,165**	**14,911**
Total for All Vehicles			**81,334**	**29,686,910**	***	***	**Total for All Vehicles**				**29,686,910**	**241,766,938**	***	***	**6,989**	**103,323**	**110,312**	**116,118**

Abbreviations:
CO_2 - carbon dioxide
CO_2e - carbon dioxide equivalent
TDM - Transportation Demand Management Program
URBEMIS - URBan EMISsions modeling software
VMT - vehicle miles traveled
Vehicle Classes (from EMFAC User Guide)
lbs - pounds

Abbreviations cont'd:
Vehicle Classes (from EMFAC User Guide)
LDA - Light Duty Auto (Passenger Cars)
LDT1, LDT2 - Light-Duty Trucks (0-3,750 lbs; 3,751-5,750 lbs)
MDV - Medium Duty Trucks (5,751-8,500 lbs)
LHDT1, LHDT2 - Light-Heavy-Duty Trucks (8,501-10,000 lbs; 10,001-14,000 lbs)
MHDT - Medium-Heavy-Duty Trucks (14,001-33,000 lbs)
HHDT - Heavy-Heavy-Duty Trucks (33,001-60,000 lbs)

Notes:
1. URBEMIS does not contain default settings for "Entertainment Center" and "Studio/Production Support"; "Entertainment Center" was based on URBEMIS default "general land use" settings, and "Studio/Production Support" was based on General Office Building settings.
2. Daily number of trips are based on information provided in the NBC Universal Evolution Plan. Trips are assumed to be one-way.
3. Annual number of trips = Daily number of trips*365
4. % trip type data are URBEMIS defaults for each land use type.
5. Trip purpose categories and the associated trip lengths are URBEMIS defaults for each land use type. % trip purpose data are based on URBEMIS defaults and the following assumptions made by ENVIRON a) All home-based trips are performed by Group A vehicles only; b) All commercial-based non-work trips are performed by Group B vehicles only.
6. VMT was adjusted to account for diverted and pass-by trips using the following default information from URBEMIS diverted trip length is assumed to be 25% of primary trip length. Pass-by trip length is assumed to be 0.1 miles.
7. Startup emission factors are taken from EMFAC. ENVIRON applied the conservative assumption of 720 minutes (12 hours) between startups. For Group B vehicles, the EMFAC startup emission factors are weighted by truck type based on an estimate of truck activity at the site, consistent with the Air Quality analysis.
8. Running emission factors are taken from EMFAC at 30 mph (URBEMIS default). For Group B vehicles, the EMFAC running emission factors are weighted by truck type based on an estimate of truck activity at the site, consistent with the Air Quality analysis.
9. $CO_2e=CO_2/0.95$ The United States Environmental Protection Agency (USEPA) recommends assuming that CH, N_2O, and HFCs are 5% of emissions on a CO_2e basis.
10. AB 1493 ("the Pavley Standard") refers to the reduction of GHG emissions from noncommercial passenger vehicles and light and medium-duty trucks of model year 2009 and thereafter, as required by the state of California (see ARB 2008a). The regulated vehicle classes are shown here for comparison purposes only; a reduction in GHG emissions is not appli this calculation scenario.
11. ARB adopted a regulation to reduce greenhouse gas emissions by improving the fuel efficiency of heavy-duty trucks (see ARB 2008b). The regulated vehicle classes are shown here for comparison purposes only; a reduction in GHG emissions is not applied in this calculation scenario.

Sources:

Gibson Transportation, Raju Associates, 2010. Transportation Study for the Universal City Evolution Plan Environmental Impact Report.
SCAQMD, 2007. URBEMIS2007 for Windows. November. http //www.urbemis.com/
CARB, 2007. EMFAC2007. http //www.arb.ca.gov/msei/onroad/latest_version.htm
California Air Resources Board (ARB). 2008a. Comparison of Greenhouse Gas Reductions For the United States and Canada Under U.S. CAFE Standards and California Air Resources Board Greenhouse Gas Regulations. Available at http //www.arb.ca.gov/cc/ccms/reports/pavleycafe_reportfeb25_08.pdf.
California Air Resources Board (ARB). 2008b. Public hearing to consider adoption of the regulation to reduce greenhouse gas emissions from heavy-duty vehicles. October. Available at http //www.arb.ca.gov/regact/2008/ghghdv08/ghgisor.pdf.

Table H.7.-1B. CO_2 Emissions (with TDM) in Project Year 2020 (Full Site - all)
NBC Universal
Evolution Plan

Vehicle Class	Land Use		Total Number of Trips completed by All (Group A + Group B) Vehicles		Trip Characteristics						Number of Trips and VMT completed by Group X of Vehicles		Emission Factors		Annual Emissions			
	per Project Transprotation Study	Categories for URBEMIS[1]	Total Daily Trips[2]	Total Annual Trips[3]	Trip Type	% Trip Type[4]	Trip Purpose[5]	% Trip Purpose[5]	Trip Length [by Trip Purpose][5] (miles)	% Trip Reduction due to TDM[6]	Annual Trips	Annual VMT[7] (miles)	Startup[8] (g/start)	Running[9] (g/mile)	Annual Startup CO_2 Emissions (tonnes)	Annual Running CO_2 Emissions (tonnes)	Total Annual CO_2 Emissions (tonnes)	Total Annual CO_2e Emissions[10] (tonnes)
Group A **Passenger Vehicles** (Vehicles <= 8,500 lbs LDA, LDT1, LDT2, MDV) Pavley Standards Applicable[11]	Mixed-Use Residential Area	Single-Family Housing	*17 796*	*6 495 401*	Primary	85.0%	Home-Based Work	32.9%	12.7	21.1%	1,686,083	18,745,025	**237.0**	**389.2**	400	7,295	7,695	8,100
					Diverted	10.0%	Home-Based Shop	18.0%	7.0	21.1%	922,477	5,654,783			219	2,201	2,419	2,547
					Passby	5.0%	Home-Based Other	49.1%	9.5	21.1%	2 516 312	20 929 425			596	8 145	8 742	9 202
		Strip Mall	*2 669*	*974 324*	Primary	45.0%	Commercial-Based Commute	2.0%	13.3	0.0%	19 486	142 836			5	56	60	63
					Diverted	40.0%	Commercial-Based Non-Work	0.0%	7.4	0.0%	0	0			0	0	0	0
					Passby	15.0%	Commercial-Based Customer	97.0%	8.9	0.0%	945 094	4 640 411			224	1 806	2 030	2 137
	Entertainment Area	Entertainment Center	*28 259*	*10 314 535*	Primary	90.0%	Commercial-Based Commute	2.0%	13.3	7.7%	190,406	2,342,474			45	912	957	1,007
					Diverted	10.0%	Commercial-Based Non-Work	0.0%	7.4	7.7%	0	0			0	0	0	0
					Passby	0.0%	Commercial-Based Customer	97.0%	8.9	4.0%	9,604,895	79,072,298			2,277	30,773	33,050	34,789
		Hotel	*4 460*	*1 627 900*	Primary	60.0%	Commercial-Based Commute	5.0%	13.3	7.7%	75,128	687,323			18	267	285	300
					Diverted	35.0%	Commercial-Based Non-Work	0.0%	7.4	7.7%	0	0			0	0	0	0
					Passby	5.0%	Commercial-Based Customer	92.5%	8.9	4.0%	1 445 575	8,852,341			343	3 445	3 788	3 987
	Business Area	General Office Building	*16 630*	*6 069 950*	Primary	75.0%	Commercial-Based Commute	35.0%	13.3	25.1%	1 591 237	16 938 722			377	6 592	6 969	7 336
					Diverted	20.0%	Commercial-Based Non-Work	0.0%	7.4	25.1%	0	0			0	0	0	0
					Passby	5.0%	Commercial-Based Customer	47.5%	8.9	25.1%	2,159,536	15,386,697			512	5,988	6,500	6,842
	Studio Area	Studio/Production Support	*11 520*	*4 204 800*	Primary	75.0%	Commercial-Based Commute	35.0%	13.3	12.2%	1,292,135	13,754,778			306	5,353	5,659	5,957
					Diverted	20.0%	Commercial-Based Non-Work	0.0%	7.4	12.2%	0	0			0	0	0	0
					Passby	5.0%	Commercial-Based Customer	47.5%	8.9	12.2%	1 753 612	12 494 484			416	4 863	5 278	5 556
	All Land Uses		***81,334***	***29,686,910***	***	***	**Subtotal for Group A Vehicles**				**24,201,977**	**199,641,598**	**237.04**	**389.17**	**5,737**	**77,695**	**83,432**	**87,823**
Group B **Commercial Vehicles** (Vehicles > 8,500 lbs LHDT1, LHDT2, MHDT, HHDT) Pavley Standards Not Applicable; Heavy-Duty Standards Applicable for HHDT and some MHDT[12]	Mixed-Use Residential Area	Single-Family Housing	*17 796*	*6 495 401*	Primary	85.0%	Home-Based Work	0.0%	12.7	21.1%	0	0	**212.3**	**1184.8**	0	0	0	0
					Diverted	10.0%	Home-Based Shop	0.0%	7.0	21.1%	0	0			0	0	0	0
					Passby	5.0%	Home-Based Other	0.0%	9.5	21.1%	0	0			0	0	0	0
		Strip Mall	*2 669*	*974 324*	Primary	45.0%	Commercial-Based Commute	0.0%	13.3	0.0%	0	0			0	0	0	0
					Diverted	40.0%	Commercial-Based Non-Work	1.0%	7.4	0.0%	9,743	39,801			2	47	49	52
					Passby	15.0%	Commercial-Based Customer	0.0%	8.9	0.0%	0	0			0	0	0	0
	Entertainment Area	Entertainment Center	*28 259*	*10 314 535*	Primary	90.0%	Commercial-Based Commute	0.0%	13.3	7.7%	0	0			0	0	0	0
					Diverted	10.0%	Commercial-Based Non-Work	1.0%	7.4	7.7%	95,203	651,666			20	772	792	834
					Passby	0.0%	Commercial-Based Customer	0.0%	8.9	4.0%	0	0			0	0	0	0
		Hotel	*4 460*	*1 627 900*	Primary	60.0%	Commercial-Based Commute	0.0%	13.3	7.7%	0	0			0	0	0	0
					Diverted	35.0%	Commercial-Based Non-Work	2.5%	7.4	7.7%	37 564	191 294			8	227	235	247
					Passby	5.0%	Commercial-Based Customer	0.0%	8.9	4.0%	0	0			0	0	0	0
	Business Area	General Office Building	*16 630*	*6 069 950*	Primary	75.0%	Commercial-Based Commute	0.0%	13.3	25.1%	0	0			0	0	0	0
					Diverted	20.0%	Commercial-Based Non-Work	17.5%	7.4	25.1%	795,619	4,714,041			169	5,585	5,754	6,057
					Passby	5.0%	Commercial-Based Customer	0.0%	8.9	25.1%	0	0			0	0	0	0
	Studio Area	Studio/Production Support	*11 520*	*4 204 800*	Primary	75.0%	Commercial-Based Commute	0.0%	13.3	12.2%	0	0			0	0	0	0
					Diverted	20.0%	Commercial-Based Non-Work	17.5%	7.4	12.2%	646,068	3,827,950			137	4,535	4,672	4,918
					Passby	5.0%	Commercial-Based Customer	0.0%	8.9	12.2%	0	0			0	0	0	0
	All Land Uses		***81,334***	***29,686,910***	***	***	**Subtotal for Group B Vehicles**				**1,584,196**	**9,424,751**	**212.3**	**1184.8**	**336**	**11,166**	**11,502**	**12,108**
Total for All Vehicles			**81,334**	**29,686,910**	***	***	**Total for All Vehicles**				**25,786,173**	**209,066,349**	***	***	**6,073**	**88,861**	**94,934**	**99,931**

Abbreviations:
CO_2 - carbon dioxide
CO_2e - carbon dioxide equivalent
TDM - Transportation Demand Management Program
URBEMIS - URBan EMISsions modeling software
VMT - vehicle miles traveled
Vehicle Classes (from EMFAC User Guide)
lbs - pounds

Abbreviations cont'd:
Vehicle Classes (from EMFAC User Guide)
LDA - Light Duty Auto (Passenger Cars)
LDT1, LDT2 - Light-Duty Trucks (0-3,750 lbs; 3,751-5,750 lbs)
MDV - Medium Duty Trucks (5,751-8,500 lbs)
LHDT1, LHDT2 - Light-Heavy-Duty Trucks (8,501-10,000 lbs; 10,001-14,000 lbs)
MHDT - Medium-Heavy-Duty Trucks (14,001-33,000 lbs)
HHDT - Heavy-Heavy-Duty Trucks (33,001-60,000 lbs)

Notes:
1. URBEMIS does not contain default settings for "Entertainment Center" and "Studio/Production Support"; "Entertainment Center" was based on URBEMIS default "general land use" settings, and "Studio/Production Support" was based on General Office Building settings.
2. Daily number of trips are based on information provided in the NBC Universal Evolution Plan. Trips are assumed to be one-way.
3. Annual number of trips = Daily number of trips*365
4. % trip type data are URBEMIS defaults for each land use type.
5. Trip purpose categories and the associated trip lengths are URBEMIS defaults for each land use type. % trip purpose data are based on URBEMIS defaults and the following assumptions made by ENVIRON a) All home-based trips are performed by Group A vehicles only; b) All commercial-based non-work trips are performed by Group B vehicles only.
6. % trip reduction data are based on information provided in Table 18 of the NBC Universal Evolution Plan Transportation Study.
7. VMT was adjusted to account for diverted and pass-by trips using the following default information from URBEMIS diverted trip length is assumed to be 25% of primary trip length. Pass-by trip length is assumed to be 0.1 miles.
8. Startup emission factors are taken from EMFAC. ENVIRON applied the conservative assumption of 720 minutes (12 hours) between startups. For Group B vehicles, the EMFAC startup emission factors are weighted by truck type based on an estimate of truck activity at the site, consistent with the Air Quality analysis.
9. Running emission factors are taken from EMFAC at 30 mph (URBEMIS default). For Group B vehicles, the EMFAC running emission factors are weighted by truck type based on an estimate of truck activity at the site, consistent with the Air Quality analysis.
10. $CO_2e=CO_2/0.95$ The United States Environmental Protection Agency (USEPA) recommends assuming that CH , N_2O, and HFCs are 5% of emissions on a CO_2e basis.
11. AB 1493 ("the Pavley Standard") refers to the reduction of GHG emissions from noncommercial passenger vehicles and light and medium-duty trucks of model year 2009 and thereafter, as required by the state of California (see ARB 2008a). The regulated vehicle classes are shown here for comparison purposes only; a reduction in GHG emissions is not applied in this calculation scenario.
12. ARB adopted a regulation to reduce greenhouse gas emissions by improving the fuel efficiency of heavy-duty trucks (see ARB 2008b). The regulated vehicle classes are shown here for comparison purposes only; a reduction in GHG emissions is not applied in this calculation scenario.

Sources:

Gibson Transportation, Raju Associates, 2010. Transportation Study for the Universal City Evolution Plan Environmental Impact Report.
SCAQMD, 2007. URBEMIS2007 for Windows. November. http //www.urbemis.com/
CARB, 2007. EMFAC2007. http //www.arb.ca.gov/msei/onroad/latest_version.htm
California Air Resources Board (ARB). 2008a. Comparison of Greenhouse Gas Reductions For the United States and Canada Under U.S. CAFE Standards and California Air Resources Board Greenhouse Gas Regulations. Available at http //www.arb.ca.gov/cc/ccms/reports/pavleycafe_reportfeb25_08.pdf.
California Air Resources Board (ARB). 2008b. Public hearing to consider adoption of the regulation to reduce greenhouse gas emissions from heavy-duty vehicles. October. Available at http //www.arb.ca.gov/regact/2008/ghghdv08/ghgisor.pdf.

Table H.7.-1C. CO_2 Emissions (with TDM, Pavley, and Heavy-Duty Standards) in Project Year 2020 (Full Site - all)
NBC Universal
Evolution Plan

Vehicle Class	Land Use		Total Number of Trips completed by All (Group A + Group B) Vehicles		Trip Characteristics							Number of Trips and VMT completed by Group X of Vehicles		Emission Factors		Annual Emissions			
	per Project Transprotation Study	Categories for URBEMIS[1]	Total Daily Trips[2]	Total Annual Trips[3]	Trip Type	% Trip Type[4]	Trip Purpose[5]	% Trip Purpose[5]	Trip Length [by Trip Purpose][5] (miles)	% Trip Reduction due to TDM[6]		Annual Trips	Annual VMT[7] (miles)	Startup[8] (g/start)	Running[9] (g/mile)	Annual Startup CO_2 Emissions (tonnes)	Annual Running CO_2 Emissions (tonnes)	Total Annual CO_2 Emissions (tonnes)	Total Annual CO_2e Emissions[10] (tonnes)
Group A Passenger Vehicles (Vehicles <= 8,500 lbs LDA, LDT1, LDT2, MDV) Pavley Standards Applicable[11]	Mixed-Use Residential Area	Single-Family Housing	17 796	6 495 401	Primary	85.0%	Home-Based Work	32.9%	12.7	21.1%		1,686,083	18,745,025	189.0	310.4	319	5,818	6,136	6,459
					Diverted	10.0%	Home-Based Shop	18.0%	7.0	21.1%		922,477	5,654,783			174	1,755	1,929	2,031
					Passby	5.0%	Home-Based Other	49.1%	9.5	21.1%		2 516 312	20 929 425			476	6 495	6 971	7 338
		Strip Mall	2 669	974 324	Primary	45.0%	Commercial-Based Commute	2.0%	13.3	0.0%		19 486	142 836			4	44	48	51
					Diverted	40.0%	Commercial-Based Non-Work	0.0%	7.4	0.0%		0	0			0	0	0	0
					Passby	15.0%	Commercial-Based Customer	97.0%	8.9	0.0%		945 094	4 640 411			179	1 440	1 619	1 704
	Entertainment Area	Entertainment Center	28 259	10 314 535	Primary	90.0%	Commercial-Based Commute	2.0%	13.3	7.7%		190,406	2,342,474			36	727	763	803
					Diverted	10.0%	Commercial-Based Non-Work	0.0%	7.4	7.7%		0	0			0	0	0	0
					Passby	0.0%	Commercial-Based Customer	97.0%	8.9	4.0%		9,604,895	79,072,298			1,816	24,540	26,356	27,743
		Hotel	4 460	1 627 900	Primary	60.0%	Commercial-Based Commute	5.0%	13.3	7.7%		75,128	687,323			14	213	228	239
					Diverted	35.0%	Commercial-Based Non-Work	0.0%	7.4	7.7%		0	0			0	0	0	0
					Passby	5.0%	Commercial-Based Customer	92.5%	8.9	4.0%		1 445 575	8,852,341			273	2 747	3 021	3 180
	Business Area	General Office Building	16 630	6 069 950	Primary	75.0%	Commercial-Based Commute	35.0%	13.3	25.1%		1 591 237	16 938 722			301	5 257	5 558	5 850
					Diverted	20.0%	Commercial-Based Non-Work	0.0%	7.4	25.1%		0	0			0	0	0	0
					Passby	5.0%	Commercial-Based Customer	47.5%	8.9	25.1%		2,159,536	15,386,697			408	4,775	5,183	5,456
	Studio Area	Studio/Production Support	11 520	4 204 800	Primary	75.0%	Commercial-Based Commute	35.0%	13.3	12.2%		1,292,135	13,754,778			244	4,269	4,513	4,751
					Diverted	20.0%	Commercial-Based Non-Work	0.0%	7.4	12.2%		0	0			0	0	0	0
					Passby	5.0%	Commercial-Based Customer	47.5%	8.9	12.2%		1 753 612	12 494 484			331	3 878	4 209	4 431
	All Land Uses		***81,334***	***29,686,910***	***	***	**Subtotal for Group A Vehicles**					**24,201,977**	**199,641,598**	**189.03**	**310.35**	**4,575**	**61,959**	**66,534**	**70,036**
Group B Commercial Vehicles (Vehicles > 8,500 lbs LHDT1, LHDT2, MHDT, HHDT) Pavley Standards Not Applicable; Heavy-Duty Standards Applicable for HHDT and some MHDT[12]	Mixed-Use Residential Area	Single-Family Housing	17 796	6 495 401	Primary	85.0%	Home-Based Work	0.0%	12.7	21.1%		0	0	212.3	1132.9	0	0	0	0
					Diverted	10.0%	Home-Based Shop	0.0%	7.0	21.1%		0	0			0	0	0	0
					Passby	5.0%	Home-Based Other	0.0%	9.5	21.1%		0	0			0	0	0	0
		Strip Mall	2 669	974 324	Primary	45.0%	Commercial-Based Commute	0.0%	13.3	0.0%		0	0			0	0	0	0
					Diverted	40.0%	Commercial-Based Non-Work	1.0%	7.4	0.0%		9,743	39,801			2	45	47	50
					Passby	15.0%	Commercial-Based Customer	0.0%	8.9	0.0%		0	0			0	0	0	0
	Entertainment Area	Entertainment Center	28 259	10 314 535	Primary	90.0%	Commercial-Based Commute	0.0%	13.3	7.7%		0	0			0	0	0	0
					Diverted	10.0%	Commercial-Based Non-Work	1.0%	7.4	7.7%		95,203	651,666			20	738	758	798
					Passby	0.0%	Commercial-Based Customer	0.0%	8.9	4.0%		0	0			0	0	0	0
		Hotel	4 460	1 627 900	Primary	60.0%	Commercial-Based Commute	0.0%	13.3	7.7%		0	0			0	0	0	0
					Diverted	35.0%	Commercial-Based Non-Work	2.5%	7.4	7.7%		37 564	191 294			8	217	225	237
					Passby	5.0%	Commercial-Based Customer	0.0%	8.9	4.0%		0	0			0	0	0	0
	Business Area	General Office Building	16 630	6 069 950	Primary	75.0%	Commercial-Based Commute	0.0%	13.3	25.1%		0	0			0	0	0	0
					Diverted	20.0%	Commercial-Based Non-Work	17.5%	7.4	25.1%		795,619	4,714,041			169	5,341	5,509	5,799
					Passby	5.0%	Commercial-Based Customer	0.0%	8.9	25.1%		0	0			0	0	0	0
	Studio Area	Studio/Production Support	11 520	4 204 800	Primary	75.0%	Commercial-Based Commute	0.0%	13.3	12.2%		0	0			0	0	0	0
					Diverted	20.0%	Commercial-Based Non-Work	17.5%	7.4	12.2%		646,068	3,827,950			137	4,337	4,474	4,709
					Passby	5.0%	Commercial-Based Customer	0.0%	8.9	12.2%		0	0			0	0	0	0
	All Land Uses		***81,334***	***29,686,910***	***	***	**Subtotal for Group B Vehicles**					**1,584,196**	**9,424,751**	**212.3**	**1132.9**	**336**	**10,677**	**11,014**	**11,593**
Total for All Vehicles			**81,334**	**29,686,910**	***	***	**Total for All Vehicles**					**25,786,173**	**209,066,349**	***	***	**4,911**	**72,636**	**77,547**	**81,629**

Abbreviations:
CO_2 - carbon dioxide
CO_2e - carbon dioxide equivalent
TDM - Transportation Demand Management Program
URBEMIS - URBan EMISsions modeling software
VMT - vehicle miles traveled
Vehicle Classes (from EMFAC User Guide)
lbs - pounds

Abbreviations cont'd:
Vehicle Classes (from EMFAC User Guide)
LDA - Light Duty Auto (Passenger Cars)
LDT1, LDT2 - Light-Duty Trucks (0-3,750 lbs; 3,751-5,750 lbs)
MDV - Medium Duty Trucks (5,751-8,500 lbs)
LHDT1, LHDT2 - Light-Heavy-Duty Trucks (8,501-10,000 lbs; 10,001-14,000 lbs)
MHDT - Medium-Heavy-Duty Trucks (14,001-33,000 lbs)
HHDT - Heavy-Heavy-Duty Trucks (33,001-60,000 lbs)

Notes:
1. URBEMIS does not contain default settings for "Entertainment Center" and "Studio/Production Support"; "Entertainment Center" was based on URBEMIS default "general land use" settings, and "Studio/Production Support" was based on General Office Building settings.
2. Daily number of trips are based on information provided in the NBC Universal Evolution Plan. Trips are assumed to be one-way.
3. Annual number of trips = Daily number of trips*365
4. % trip type data are URBEMIS defaults for each land use type.

5. Trip purpose categories and the associated trip lengths are URBEMIS defaults for each land use type. % trip purpose data are based on URBEMIS defaults and the following assumptions made by ENVIRON a) All home-based trips are performed by Group A vehicles only; b) All commercial-based non-work trips are performed by Group B vehicles only.

6. % trip reduction data are based on information provided in Table 18 of the NBC Universal Evolution Plan Transportation Study.
7. VMT was adjusted to account for diverted and pass-by trips using the following default information from URBEMIS diverted trip length is assumed to be 25% of primary trip length. Pass-by trip length is assumed to be 0.1 miles.
8. Startup emission factors are taken from EMFAC. ENVIRON applied the conservative assumption of 720 minutes (12 hours) between startups. For Group B vehicles, the EMFAC startup emission factors are weighted by truck type based on an estimate of truck activity at the site, consistent with the Air Quality analysis.
9. Running emission factors are taken from EMFAC at 30 mph (URBEMIS default). For Group B vehicles, the EMFAC running emission factors are weighted by truck type based on an estimate of truck activity at the site, consistent with the Air Quality analysis.
10. $CO_2e=CO_2/0.95$ The United States Environmental Protection Agency (USEPA) recommends assuming that CH , N_2O, and HFCs are 5% of emissions on a CO_2e basis.

11. A 20.25% reduction in starting and running emissions was taken to account for the AB 1493 "Pavley Standards" for noncommercial passenger vehicles and light and medium-duty trucks. The percent reduction was based on data for year 2020 in Table 11 of the 2008a ARB report. This reduction was applied to both the startup and running emission factors.

12. An 8.77% reduction in the running emissions of all HHDT and some MHDT was taken to account for the ARB Heavy Duty Vehicle Greenhouse Gas Measure. The percent reduction was based on data for year 2020 in Table XI-2 in the 2008b ARB report. This 8.8% reduction was applied to 37% of MHDT assuming an even distribution of vehicles throughout the MHDT weight class. This reduction was applied to the running emission factor only.

Sources:

Gibson Transportation, Raju Associates, 2010. Transportation Study for the Universal City Evolution Plan Environmental Impact Report.
SCAQMD, 2007. URBEMIS2007 for Windows. November. http //www.urbemis.com/
CARB, 2007. EMFAC2007. http //www.arb.ca.gov/msei/onroad/latest_version.htm
California Air Resources Board (ARB). 2008a. Comparison of Greenhouse Gas Reductions For the United States and Canada Under U.S. CAFE Standards and California Air Resources Board Greenhouse Gas Regulations. Available at http //www.arb.ca.gov/cc/ccms/reports/pavleycafe_reportfeb25_08.pdf.
California Air Resources Board (ARB). 2008b. Public hearing to consider adoption of the regulation to reduce greenhouse gas emissions from heavy-duty vehicles. October. Available at http //www.arb.ca.gov/regact/2008/ghghdv08/ghgisor.pdf.

Table H.7.-2A. CO_2 Emissions in Project Year 2020 (Full Site - all, reduced trip length)
NBC Universal
Evolution Plan

Vehicle Class	Land Use		Total Number of Trips completed by All (Group A + Group B) Vehicles		Trip Characteristics					Number of Trips and VMT completed by Group X of Vehicles		Emission Factors		Annual Emissions			
	per Project Transprotation Study	Categories for URBEMIS[1]	Total Daily Trips[2]	Total Annual Trips[3]	Trip Type	% Trip Type[4]	Trip Purpose[5]	% Trip Purpose[5]	Trip Length [by Trip Purpose][5] (miles)	Annual Trips	Annual VMT[6] (miles)	Startup[7] (g/start)	Running[8] (g/mile)	Annual Startup CO_2 Emissions (tonnes)	Annual Running CO_2 Emissions (tonnes)	Total Annual CO_2 Emissions (tonnes)	Total Annual CO_2e Emissions[9] (tonnes)
Group A **Passenger Vehicles** (Vehicles <= 8,500 lbs LDA, LDT1, LDT2, MDV) Pavley Standards Applicable[10]	Mixed-Use Residential Area	Single-Family Housing	17 796	6 495 401	Primary	85.0%	Home-Based Work	32.9%	10.3	2 136 987	19 288 979	237.0	389.2	507	7 507	8 013	8 435
					Diverted	10.0%	Home-Based Shop	18.0%	7.0	1 169 172	7 167 026			277	2 789	3 066	3 228
					Passby	5.0%	Home-Based Other	49.1%	9.5	3 189 242	26 526 521			756	10 323	11 079	11 663
		Strip Mall	2 669	974 324	Primary	45.0%	Commercial-Based Commute	2.0%	13.3	19 486	142 836			5	56	60	63
					Diverted	40.0%	Commercial-Based Non-Work	0.0%	7.4	0	0			0	0	0	0
					Passby	15.0%	Commercial-Based Customer	97.0%	8.9	945 094	4 640 411			224	1 806	2 030	2 137
	Entertainment Area	Entertainment Center	28 259	10 314 535	Primary	90.0%	Commercial-Based Commute	2.0%	13.3	206 291	2 537 891			49	988	1 037	1 091
					Diverted	10.0%	Commercial-Based Non-Work	0.0%	7.4	0	0			0	0	0	0
					Passby	0.0%	Commercial-Based Customer	97.0%	8.9	10 005 099	82 366 977			2 372	32 055	34 427	36 239
		Hotel	4 460	1 627 900	Primary	60.0%	Commercial-Based Commute	5.0%	13.3	81 395	744 663			19	290	309	325
					Diverted	35.0%	Commercial-Based Non-Work	0.0%	7.4	0	0			0	0	0	0
					Passby	5.0%	Commercial-Based Customer	92.5%	8.9	1 505 808	9,221,189			357	3 589	3 946	4 153
	Business Area	General Office Building	16 630	6 069 950	Primary	75.0%	Commercial-Based Commute	35.0%	13.3	2 124 483	22 615 116			504	8 801	9 305	9 795
					Diverted	20.0%	Commercial-Based Non-Work	0.0%	7.4	0	0			0	0	0	0
					Passby	5.0%	Commercial-Based Customer	47.5%	8.9	2 883 226	20 542 987			683	7 995	8 678	9 135
	Studio Area	Studio/Production Support	11 520	4 204 800	Primary	75.0%	Commercial-Based Commute	35.0%	13.3	1 471 680	15 666 034			349	6 097	6 446	6 785
					Diverted	20.0%	Commercial-Based Non-Work	0.0%	7.4	0	0			0	0	0	0
					Passby	5.0%	Commercial-Based Customer	47.5%	8.9	1 997 280	14 230 620			473	5 538	6 012	6 328
	All Land Uses		***81,334***	***29,686,910***	***	***	**Subtotal for Group A Vehicles**			**27,735,243**	**225,691,249**	**237.04**	**389.17**	**6,574**	**87,833**	**94,407**	**99,376**
3																	
Group B **Commercial Vehicles** (Vehicles > 8,500 lbs LHDT1, LHDT2, MHDT, HHDT) Pavley Standards Not Applicable; Heavy-Duty Standards Applicable for HHDT and some MHDT[11]	Mixed-Use Residential Area	Single-Family Housing	17 796	6 495 401	Primary	85.0%	Home-Based Work	0.0%	10.3	0	0	212.3	1184.8	0	0	0	0
					Diverted	10.0%	Home-Based Shop	0.0%	7.0	0	0			0	0	0	0
					Passby	5.0%	Home-Based Other	0.0%	9.5	0	0			0	0	0	0
		Strip Mall	2 669	974 324	Primary	45.0%	Commercial-Based Commute	0.0%	13.3	0	0			0	0	0	0
					Diverted	40.0%	Commercial-Based Non-Work	1.0%	7.4	9 743	39 801			2	47	49	52
					Passby	15.0%	Commercial-Based Customer	0.0%	8.9	0	0			0	0	0	0
	Entertainment Area	Entertainment Center	28 259	10 314 535	Primary	90.0%	Commercial-Based Commute	0.0%	13.3	0	0			0	0	0	0
					Diverted	10.0%	Commercial-Based Non-Work	1.0%	7.4	103 145	706 030			22	836	858	904
					Passby	0.0%	Commercial-Based Customer	0.0%	8.9	0	0			0	0	0	0
		Hotel	4 460	1 627 900	Primary	60.0%	Commercial-Based Commute	0.0%	13.3	0	0			0	0	0	0
					Diverted	35.0%	Commercial-Based Non-Work	2.5%	7.4	40 698	207 252			9	246	254	268
					Passby	5.0%	Commercial-Based Customer	0.0%	8.9	0	0			0	0	0	0
	Business Area	General Office Building	16 630	6 069 950	Primary	75.0%	Commercial-Based Commute	0.0%	13.3	0	0			0	0	0	0
					Diverted	20.0%	Commercial-Based Non-Work	17.5%	7.4	1 062 241	6 293 779			226	7 457	7 682	8 086
					Passby	5.0%	Commercial-Based Customer	0.0%	8.9	0	0			0	0	0	0
	Studio Area	Studio/Production Support	11 520	4 204 800	Primary	75.0%	Commercial-Based Commute	0.0%	13.3	0	0			0	0	0	0
					Diverted	20.0%	Commercial-Based Non-Work	17.5%	7.4	735 840	4 359 852			156	5 165	5 322	5 602
					Passby	5.0%	Commercial-Based Customer	0.0%	8.9	0	0			0	0	0	0
	All Land Uses		***81,334***	***29,686,910***	***	***	**Subtotal for Group B Vehicles**			**1,951,667**	**11,606,714**	**212.3**	**1184.8**	**414**	**13,751**	**14,165**	**14,911**
Total for All Vehicles			**81,334**	**29,686,910**	***	***	**Total for All Vehicles**			**29,686,910**	**237,297,964**	***	***	**6,989**	**101,584**	**108,573**	**114,287**

Abbreviations:
CO_2 - carbon dioxide
CO_2e - carbon dioxide equivalent
TDM - Transportation Demand Management Program
URBEMIS - URBan EMISsions modeling software
VMT - vehicle miles traveled
Vehicle Classes (from EMFAC User Guide)
lbs - pounds

Abbreviations cont'd:
Vehicle Classes (from EMFAC User Guide)
LDA - Light Duty Auto (Passenger Cars)
LDT1, LDT2 - Light-Duty Trucks (0-3,750 lbs; 3,751-5,750 lbs)
MDV - Medium Duty Trucks (5,751-8,500 lbs)
LHDT1, LHDT2 - Light-Heavy-Duty Trucks (8,501-10,000 lbs; 10,001-14,000 lbs)
MHDT - Medium-Heavy-Duty Trucks (14,001-33,000 lbs)
HHDT - Heavy-Heavy-Duty Trucks (33,001-60,000 lbs)

Notes:
1. URBEMIS does not contain default settings for "Entertainment Center" and "Studio/Production Support"; "Entertainment Center" was based on URBEMIS default "general land use" settings, and "Studio/Production Support" was based on General Office Building settings.
2. Daily number of trips are based on information provided in the NBC Universal Evolution Plan. Trips are assumed to be one-way.
3. Annual number of trips = Daily number of trips*365
4. % trip type data are URBEMIS defaults for each land use type.
5. Trip purpose categories and the associated trip lengths are URBEMIS defaults for each land use type, with the exception of home-based-work trips, for which a project-specific value was supplied. % trip purpose data are based on URBEMIS defaults and the following assumptions made by ENVIRON a) All home-based trips are performed by Group A vehicle commercial-based non-work trips are performed by Group B vehicles only.
6. VMT was adjusted to account for diverted and pass-by trips using the following default information from URBEMIS diverted trip length is assumed to be 25% of primary trip length. Pass-by trip length is assumed to be 0.1 miles.
7. Startup emission factors are taken from EMFAC. ENVIRON applied the conservative assumption of 720 minutes (12 hours) between startups. For Group B vehicles, the EMFAC startup emission factors are weighted by truck type based on an estimate of truck activity at the site, consistent with the Air Quality analysis.
8. Running emission factors are taken from EMFAC at 30 mph (URBEMIS default). For Group B vehicles, the EMFAC running emission factors are weighted by truck type based on an estimate of truck activity at the site, consistent with the Air Quality analysis.
9. $CO_2e=CO_2/0.95$ The United States Environmental Protection Agency (USEPA) recommends assuming that CH , N_2O, and HFCs are 5% of emissions on a CO_2e basis.
10. AB 1493 ("the Pavley Standard") refers to the reduction of GHG emissions from noncommercial passenger vehicles and light and medium-duty trucks of model year 2009 and thereafter, as required by the state of California (see ARB 2008a). The regulated vehicle classes are shown here for comparison purposes only; a reduction in GHG emissions is not applied in this calculation scenario.
11. ARB adopted a regulation to reduce greenhouse gas emissions by improving the fuel efficiency of heavy-duty trucks (see ARB 2008b). The regulated vehicle classes are shown here for comparison purposes only; a reduction in GHG emissions is not applied in this calculation scenario.

Sources:

Gibson Transportation, Raju Associates, 2010. Transportation Study for the Universal City Evolution Plan Environmental Impact Report.
SCAQMD, 2007. URBEMIS2007 for Windows. November. http //www.urbemis.com/
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Table H.7.-2B. CO_2 Emissions (with TDM) in Project Year 2020 (Full Site - all, reduced trip length)
NBC Universal
Evolution Plan

Vehicle Class	Land Use		Total Number of Trips completed by All (Group A + Group B) Vehicles		Trip Characteristics							Number of Trips and VMT completed by Group X of Vehicles		Emission Factors		Annual Emissions			
	per Project Transprotation Study	Categories for URBEMIS[1]	Total Daily Trips[2]	Total Annual Trips[3]	Trip Type	% Trip Type[4]	Trip Purpose[5]	% Trip Purpose[5]	Trip Length [by Trip Purpose][5] (miles)	% Trip Reduction due to TDM[6]		Annual Trips	Annual VMT[7] (miles)	Startup[8] (g/start)	Running[9] (g/mile)	Annual Startup CO_2 Emissions (tonnes)	Annual Running CO_2 Emissions (tonnes)	Total Annual CO_2 Emissions (tonnes)	Total Annual CO_2e Emissions[10] (tonnes)
Group A Passenger Vehicles (Vehicles <= 8,500 lbs LDA, LDT1, LDT2, MDV) Pavley Standards Applicable[11]	Mixed-Use Residential Area	Single-Family Housing	17 796	6 495 401	Primary	85.0%	Home-Based Work	32.9%	10.3	21.1%		1 686 083	15 219 005	237.0	389.2	400	5 923	6 323	6 655
					Diverted	10.0%	Home-Based Shop	18.0%	7.0	21.1%		922 477	5 654 783			219	2 201	2 419	2 547
					Passby	5.0%	Home-Based Other	49.1%	9.5	21.1%		2 516 312	20 929 425			596	8 145	8 742	9 202
		Strip Mall	2 669	974 324	Primary	45.0%	Commercial-Based Commute	2.0%	13.3	0.0%		19,486	142,836			5	56	60	63
					Diverted	40.0%	Commercial-Based Non-Work	0.0%	7.4	0.0%		0	0			0	0	0	0
					Passby	15.0%	Commercial-Based Customer	97.0%	8.9	0.0%		945,094	4,640,411			224	1,806	2,030	2,137
	Entertainment Area	Entertainment Center	28 259	10 314 535	Primary	90.0%	Commercial-Based Commute	2.0%	13.3	7.7%		190,406	2,342,474			45	912	957	1,007
					Diverted	10.0%	Commercial-Based Non-Work	0.0%	7.4	7.7%		0	0			0	0	0	0
					Passby	0.0%	Commercial-Based Customer	97.0%	8.9	4.0%		9 604 895	79 072 298			2 277	30 773	33 050	34 789
		Hotel	4 460	1 627 900	Primary	60.0%	Commercial-Based Commute	5.0%	13.3	7.7%		75 128	687 323			18	267	285	300
					Diverted	35.0%	Commercial-Based Non-Work	0.0%	7.4	7.7%		0	0			0	0	0	0
					Passby	5.0%	Commercial-Based Customer	92.5%	8.9	4.0%		1,445,575	8,852,341			343	3,445	3,788	3,987
	Business Area	General Office Building	16 630	6 069 950	Primary	75.0%	Commercial-Based Commute	35.0%	13.3	25.1%		1,591,237	16,938,722			377	6,592	6,969	7,336
					Diverted	20.0%	Commercial-Based Non-Work	0.0%	7.4	25.1%		0	0			0	0	0	0
					Passby	5.0%	Commercial-Based Customer	47.5%	8.9	25.1%		2 159 536	15 386 697			512	5 988	6 500	6 842
	Studio Area	Studio/Production Support	11 520	4 204 800	Primary	75.0%	Commercial-Based Commute	35.0%	13.3	12.2%		1,292,135	13,754,778			306	5,353	5,659	5,957
					Diverted	20.0%	Commercial-Based Non-Work	0.0%	7.4	12.2%		0	0			0	0	0	0
					Passby	5.0%	Commercial-Based Customer	47.5%	8.9	12.2%		1 753 612	12 494 484			416	4 863	5 278	5 556
	All Land Uses		***81,334***	***29,686,910***	***	***	**Subtotal for Group A Vehicles**					**24,201,977**	**196,115,578**	**237.04**	**389.17**	**5,737**	**76,323**	**82,060**	**86,379**
Group B Commercial Vehicles (Vehicles > 8,500 lbs LHDT1, LHDT2, MHDT, HHDT) Pavley Standards Not Applicable; Heavy-Duty Standards Applicable for HHDT and some MHDT[12]	Mixed-Use Residential Area	Single-Family Housing	17 796	6 495 401	Primary	85.0%	Home-Based Work	0.0%	10.3	21.1%		0	0	212.3	1184.8	0	0	0	0
					Diverted	10.0%	Home-Based Shop	0.0%	7.0	21.1%		0	0			0	0	0	0
					Passby	5.0%	Home-Based Other	0.0%	9.5	21.1%		0	0			0	0	0	0
		Strip Mall	2 669	974 324	Primary	45.0%	Commercial-Based Commute	0.0%	13.3	0.0%		0	0			0	0	0	0
					Diverted	40.0%	Commercial-Based Non-Work	1.0%	7.4	0.0%		9,743	39,801			2	47	49	52
					Passby	15.0%	Commercial-Based Customer	0.0%	8.9	0.0%		0	0			0	0	0	0
	Entertainment Area	Entertainment Center	28 259	10 314 535	Primary	90.0%	Commercial-Based Commute	0.0%	13.3	7.7%		0	0			0	0	0	0
					Diverted	10.0%	Commercial-Based Non-Work	1.0%	7.4	7.7%		95 203	651 666			20	772	792	834
					Passby	0.0%	Commercial-Based Customer	0.0%	8.9	4.0%		0	0			0	0	0	0
		Hotel	4 460	1 627 900	Primary	60.0%	Commercial-Based Commute	0.0%	13.3	7.7%		0	0			0	0	0	0
					Diverted	35.0%	Commercial-Based Non-Work	2.5%	7.4	7.7%		37,564	191,294			8	227	235	247
					Passby	5.0%	Commercial-Based Customer	0.0%	8.9	4.0%		0	0			0	0	0	0
	Business Area	General Office Building	16 630	6 069 950	Primary	75.0%	Commercial-Based Commute	0.0%	13.3	25.1%		0	0			0	0	0	0
					Diverted	20.0%	Commercial-Based Non-Work	17.5%	7.4	25.1%		795,619	4,714,041			169	5,585	5,754	6,057
					Passby	5.0%	Commercial-Based Customer	0.0%	8.9	25.1%		0	0			0	0	0	0
	Studio Area	Studio/Production Support	11 520	4 204 800	Primary	75.0%	Commercial-Based Commute	0.0%	13.3	12.2%		0	0			0	0	0	0
					Diverted	20.0%	Commercial-Based Non-Work	17.5%	7.4	12.2%		646,068	3,827,950			137	4,535	4,672	4,918
					Passby	5.0%	Commercial-Based Customer	0.0%	8.9	12.2%		0	0			0	0	0	0
	All Land Uses		***81,334***	***29,686,910***	***	***	**Subtotal for Group B Vehicles**					**1,584,196**	**9,424,751**	**212.3**	**1184.8**	**336**	**11,166**	**11,502**	**12,108**
Total for All Vehicles			**81,334**	**29,686,910**	***	***	**Total for All Vehicles**					**25,786,173**	**205,540,329**	***	***	**6,073**	**87,489**	**93,562**	**98,486**

Abbreviations:
CO_2- carbon dioxide
CO_2e - carbon dioxide equivalent
TDM - Transportation Demand Management Program
URBEMIS - URBan EMISsions modeling software
VMT - vehicle miles traveled
Vehicle Classes (from EMFAC User Guide)
lbs - pounds

Abbreviations cont'd:
Vehicle Classes (from EMFAC User Guide)
LDA - Light Duty Auto (Passenger Cars)
LDT1, LDT2 - Light-Duty Trucks (0-3,750 lbs; 3,751-5,750 lbs)
MDV - Medium Duty Trucks (5,751-8,500 lbs)
LHDT1, LHDT2 - Light-Heavy-Duty Trucks (8,501-10,000 lbs; 10,001-14,000 lbs)
MHDT - Medium-Heavy-Duty Trucks (14,001-33,000 lbs)
HHDT - Heavy-Heavy-Duty Trucks (33,001-60,000 lbs)

Notes:
1. URBEMIS does not contain default settings for "Entertainment Center" and "Studio/Production Support"; "Entertainment Center" was based on URBEMIS default "general land use" settings, and "Studio/Production Support" was based on General Office Building settings.
2. Daily number of trips are based on information provided in the NBC Universal Evolution Plan. Trips are assumed to be one-way.
3. Annual number of trips = Daily number of trips*365
4. % trip type data are URBEMIS defaults for each land use type.
5. Trip purpose categories and the associated trip lengths are URBEMIS defaults for each land use type, with the exception of home-based-work trips, for which a project-specific value was supplied. % trip purpose data are based on URBEMIS defaults and the following assumptions made by ENVIRON a) All home-based trips are performed by Group A vehicles only; b) All commercial-based non-work trips are performed by Group B vehicles only.
6. % trip reduction data are based on information provided in Table 18 of the NBC Universal Evolution Plan Transportation Study.
7. VMT was adjusted to account for diverted and pass-by trips using the following default information from URBEMIS diverted trip length is assumed to be 25% of primary trip length. Pass-by trip length is assumed to be 0.1 miles.
8. Startup emission factors are taken from EMFAC. ENVIRON applied the conservative assumption of 720 minutes (12 hours) between startups. For Group B vehicles, the EMFAC startup emission factors are weighted by truck type based on an estimate of truck activity at the site, consistent with the Air Quality analysis.
9. Running emission factors are taken from EMFAC at 30 mph (URBEMIS default). For Group B vehicles, the EMFAC running emission factors are weighted by truck type based on an estimate of truck activity at the site, consistent with the Air Quality analysis.
10. $CO_2e=CO_2/0.95$ The United States Environmental Protection Agency (USEPA) recommends assuming that CH_4, N_2O, and HFCs are 5% of emissions on a CO_2e basis.
11. AB 1493 ("the Pavley Standard") refers to the reduction of GHG emissions from noncommercial passenger vehicles and light and medium-duty trucks of model year 2009 and thereafter, as required by the state of California (see ARB 2008a). The regulated vehicle classes are shown here for comparison purposes only; a reduction in GHG emissions is not applied in this calculation scenario.
12. ARB adopted a regulation to reduce greenhouse gas emissions by improving the fuel efficiency of heavy-duty trucks (see ARB 2008b). The regulated vehicle classes are shown here for comparison purposes only; a reduction in GHG emissions is not applied in this calculation scenario.

Sources:

Gibson Transportation, Raju Associates, 2010. Transportation Study for the Universal City Evolution Plan Environmental Impact Report.
SCAQMD, 2007. URBEMIS2007 for Windows. November. http //www.urbemis.com/
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California Air Resources Board (ARB). 2008b. Public hearing to consider adoption of the regulation to reduce greenhouse gas emissions from heavy-duty vehicles. October. Available at http //www.arb.ca.gov/regact/2008/ghghdv08/ghgisor.pdf.

Table H.7.-2C. CO_2 Emissions (with TDM, Pavley, and Heavy-Duty Standards) in Project Year 2020 (Full Site - all, reduced trip length)
NBC Universal
Evolution Plan

Vehicle Class	Land Use		Total Number of Trips completed by All (Group A + Group B) Vehicles		Trip Characteristics							Number of Trips and VMT completed by Group X of Vehicles		Emission Factors		Annual Emissions			
	per Project Transprotation Study	Categories for URBEMIS[1]	Total Daily Trips[2]	Total Annual Trips[3]	Trip Type	% Trip Type[4]	Trip Purpose[5]	% Trip Purpose[5]	Trip Length [by Trip Purpose][5] (miles)	% Trip Reduction due to TDM[6]		Annual Trips	Annual VMT[7] (miles)	Startup[8] (g/start)	Running[9] (g/mile)	Annual Startup CO_2 Emissions (tonnes)	Annual Running CO_2 Emissions (tonnes)	Total Annual CO_2 Emissions (tonnes)	Total Annual CO_2e Emissions[10] (tonnes)
Group A Passenger Vehicles (Vehicles <= 8,500 lbs LDA, LDT1, LDT2, MDV) Pavley Standards Applicable[11]	Mixed-Use Residential Area	Single-Family Housing	17 796	6 495 401	Primary	85.0%	Home-Based Work	32.9%	10.3	21.1%		1 686 083	15 219 005	189.0	310.4	319	4 723	5 042	5 307
					Diverted	10.0%	Home-Based Shop	18.0%	7.0	21.1%		922 477	5 654 783			174	1 755	1 929	2 031
					Passby	5.0%	Home-Based Other	49.1%	9.5	21.1%		2 516 312	20 929 425			476	6 495	6 971	7 338
		Strip Mall	2 669	974 324	Primary	45.0%	Commercial-Based Commute	2.0%	13.3	0.0%		19,486	142,836			4	44	48	51
					Diverted	40.0%	Commercial-Based Non-Work	0.0%	7.4	0.0%		0	0			0	0	0	0
					Passby	15.0%	Commercial-Based Customer	97.0%	8.9	0.0%		945,094	4,640,411			179	1,440	1,619	1,704
	Entertainment Area	Entertainment Center	28 259	10 314 535	Primary	90.0%	Commercial-Based Commute	2.0%	13.3	7.7%		190,406	2,342,474			36	727	763	803
					Diverted	10.0%	Commercial-Based Non-Work	0.0%	7.4	7.7%		0	0			0	0	0	0
					Passby	0.0%	Commercial-Based Customer	97.0%	8.9	4.0%		9 604 895	79 072 298			1 816	24 540	26 356	27 743
		Hotel	4 460	1 627 900	Primary	60.0%	Commercial-Based Commute	5.0%	13.3	7.7%		75 128	687 323			14	213	228	239
					Diverted	35.0%	Commercial-Based Non-Work	0.0%	7.4	7.7%		0	0			0	0	0	0
					Passby	5.0%	Commercial-Based Customer	92.5%	8.9	4.0%		1,445,575	8,852,341			273	2,747	3,021	3,180
	Business Area	General Office Building	16 630	6 069 950	Primary	75.0%	Commercial-Based Commute	35.0%	13.3	25.1%		1,591,237	16,938,722			301	5,257	5,558	5,850
					Diverted	20.0%	Commercial-Based Non-Work	0.0%	7.4	25.1%		0	0			0	0	0	0
					Passby	5.0%	Commercial-Based Customer	47.5%	8.9	25.1%		2 159 536	15 386 697			408	4 775	5 183	5 456
	Studio Area	Studio/Production Support	11 520	4 204 800	Primary	75.0%	Commercial-Based Commute	35.0%	13.3	12.2%		1,292,135	13,754,778			244	4,269	4,513	4,751
					Diverted	20.0%	Commercial-Based Non-Work	0.0%	7.4	12.2%		0	0			0	0	0	0
					Passby	5.0%	Commercial-Based Customer	47.5%	8.9	12.2%		1 753 612	12 494 484			331	3 878	4 209	4 431
	All Land Uses		***81,334***	***29,686,910***	***	***	**Subtotal for Group A Vehicles**					**24,201,977**	**196,115,578**	**189.03**	**310.35**	**4,575**	**60,865**	**65,439**	**68,884**
Group B Commercial Vehicles (Vehicles > 8,500 lbs LHDT1, LHDT2, MHDT, HHDT) Pavley Standards Not Applicable; Heavy-Duty Standards Applicable for HHDT and some MHDT[12]	Mixed-Use Residential Area	Single-Family Housing	17 796	6 495 401	Primary	85.0%	Home-Based Work	0.0%	10.3	21.1%		0	0	212.3	1132.9	0	0	0	0
					Diverted	10.0%	Home-Based Shop	0.0%	7.0	21.1%		0	0			0	0	0	0
					Passby	5.0%	Home-Based Other	0.0%	9.5	21.1%		0	0			0	0	0	0
		Strip Mall	2 669	974 324	Primary	45.0%	Commercial-Based Commute	0.0%	13.3	0.0%		0	0			0	0	0	0
					Diverted	40.0%	Commercial-Based Non-Work	1.0%	7.4	0.0%		9,743	39,801			2	45	47	50
					Passby	15.0%	Commercial-Based Customer	0.0%	8.9	0.0%		0	0			0	0	0	0
	Entertainment Area	Entertainment Center	28 259	10 314 535	Primary	90.0%	Commercial-Based Commute	0.0%	13.3	7.7%		0	0			0	0	0	0
					Diverted	10.0%	Commercial-Based Non-Work	1.0%	7.4	7.7%		95 203	651 666			20	738	758	798
					Passby	0.0%	Commercial-Based Customer	0.0%	8.9	4.0%		0	0			0	0	0	0
		Hotel	4 460	1 627 900	Primary	60.0%	Commercial-Based Commute	0.0%	13.3	7.7%		0	0			0	0	0	0
					Diverted	35.0%	Commercial-Based Non-Work	2.5%	7.4	7.7%		37,564	191,294			8	217	225	237
					Passby	5.0%	Commercial-Based Customer	0.0%	8.9	4.0%		0	0			0	0	0	0
	Business Area	General Office Building	16 630	6 069 950	Primary	75.0%	Commercial-Based Commute	0.0%	13.3	25.1%		0	0			0	0	0	0
					Diverted	20.0%	Commercial-Based Non-Work	17.5%	7.4	25.1%		795,619	4,714,041			169	5,341	5,509	5,799
					Passby	5.0%	Commercial-Based Customer	0.0%	8.9	25.1%		0	0			0	0	0	0
	Studio Area	Studio/Production Support	11 520	4 204 800	Primary	75.0%	Commercial-Based Commute	0.0%	13.3	12.2%		0	0			0	0	0	0
					Diverted	20.0%	Commercial-Based Non-Work	17.5%	7.4	12.2%		646,068	3,827,950			137	4,337	4,474	4,709
					Passby	5.0%	Commercial-Based Customer	0.0%	8.9	12.2%		0	0			0	0	0	0
	All Land Uses		***81,334***	***29,686,910***	***	***	**Subtotal for Group B Vehicles**					**1,584,196**	**9,424,751**	**212.3**	**1132.9**	**336**	**10,677**	**11,014**	**11,593**
Total for All Vehicles			**81,334**	**29,686,910**	***	***	**Total for All Vehicles**					**25,786,173**	**205,540,329**	***	***	**4,911**	**71,542**	**76,453**	**80,477**

Abbreviations:
CO_2- carbon dioxide
CO_2e - carbon dioxide equivalent
TDM - Transportation Demand Management Program
URBEMIS - URBan EMISsions modeling software
VMT - vehicle miles traveled
Vehicle Classes (from EMFAC User Guide)
lbs - pounds

Abbreviations cont'd:
Vehicle Classes (from EMFAC User Guide)
LDA - Light Duty Auto (Passenger Cars)
LDT1, LDT2 - Light-Duty Trucks (0-3,750 lbs; 3,751-5,750 lbs)
MDV - Medium Duty Trucks (5,751-8,500 lbs)
LHDT1, LHDT2 - Light-Heavy-Duty Trucks (8,501-10,000 lbs; 10,001-14,000 lbs)
MHDT - Medium-Heavy-Duty Trucks (14,001-33,000 lbs)
HHDT - Heavy-Heavy-Duty Trucks (33,001-60,000 lbs)

Notes:
1. URBEMIS does not contain default settings for "Entertainment Center" and "Studio/Production Support"; "Entertainment Center" was based on URBEMIS default "general land use" settings, and "Studio/Production Support" was based on General Office Building settings.
2. Daily number of trips are based on information provided in the NBC Universal Evolution Plan. Trips are assumed to be one-way.
3. Annual number of trips = Daily number of trips*365
4. % trip type data are URBEMIS defaults for each land use type.
5. Trip purpose categories and the associated trip lengths are URBEMIS defaults for each land use type, with the exception of home-based-work trips, for which a project-specific value was supplied. % trip purpose data are based on URBEMIS defaults and the following assumptions made by ENVIRON a) All home-based trips are performed by Group A vehicles only; b) All commercial-based non-work trips are performed by Group B vehicles only.
6. % trip reduction data are based on information provided in Table 18 of the NBC Universal Evolution Plan Transportation Study.
7. VMT was adjusted to account for diverted and pass-by trips using the following default information from URBEMIS diverted trip length is assumed to be 25% of primary trip length. Pass-by trip length is assumed to be 0.1 miles.
8. Startup emission factors are taken from EMFAC. ENVIRON applied the conservative assumption of 720 minutes (12 hours) between startups. For Group B vehicles, the EMFAC startup emission factors are weighted by truck type based on an estimate of truck activity at the site, consistent with the Air Quality analysis.
9. Running emission factors are taken from EMFAC at 30 mph (URBEMIS default). For Group B vehicles, the EMFAC running emission factors are weighted by truck type based on an estimate of truck activity at the site, consistent with the Air Quality analysis.
10. CO_2e=CO_2/0.95 The United States Environmental Protection Agency (USEPA) recommends assuming that CH , N_2O, and HFCs are 5% of emissions on a CO_2e basis.

11. A 20.25% reduction in starting and running emissions was taken to account for the AB 1493 "Pavley Standards" for noncommercial passenger vehicles and light and medium-duty trucks. The percent reduction was based on data for year 2020 in Table 11 of the 2008a ARB report. This reduction was applied to both the startup and running emission factors.

12. An 8.77% reduction in the running emissions of all HHDT and some MHDT was taken to account for the ARB Heavy Duty Vehicle Greenhouse Gas Measure. The percent reduction was based on data for year 2020 in Table XI-2 in the 2008b ARB report. This 8.8% reduction was applied to 37% of MHDT assuming an even distribution of vehicles throughout the MHDT weight class. This reduction was applied to the running emission factor only.

Sources:

Gibson Transportation, Raju Associates, 2010. Transportation Study for the Universal City Evolution Plan Environmental Impact Report.
SCAQMD, 2007. URBEMIS2007 for Windows. November. http //www.urbemis.com/
CARB, 2007. EMFAC2007. http //www.arb.ca.gov/msei/onroad/latest_version.htm
California Air Resources Board (ARB). 2008a. Comparison of Greenhouse Gas Reductions For the United States and Canada Under U.S. CAFE Standards and California Air Resources Board Greenhouse Gas Regulations. Available at http //www.arb.ca.gov/cc/ccms/reports/pavleycafe_reportfeb25_08.pdf.
California Air Resources Board (ARB). 2008b. Public hearing to consider adoption of the regulation to reduce greenhouse gas emissions from heavy-duty vehicles. October. Available at http //www.arb.ca.gov/regact/2008/ghghdv08/ghgisor.pdf.

Table H.7.-3A. CO_2 Emissions in Project Year 2020 (Full Site - growth only)
NBC Universal
Evolution Plan

Vehicle Class	Land Use	*Total Number of Trips completed by **All** (Group A + Group B) Vehicles*		Trip Characteristics					Number of Trips and VMT completed by Group X of Vehicles		Emission Factors		Annual Emissions			
	Categories for URBEMIS[1]	*Total Daily Trips*[2]	*Total Annual Trips*[3]	Trip Type	% Trip Type[4]	Trip Purpose[5]	% Trip Purpose[5]	Trip Length [by Trip Purpose][5] (miles)	Annual Trips	Annual VMT[6] (miles)	Startup[7] (g/start)	Running[8] (g/mile)	Annual Startup CO_2 Emissions (tonnes)	Annual Running CO_2 Emissions (tonnes)	Total Annual CO_2 Emissions (tonnes)	Total Annual CO_2e Emissions[9] (tonnes)
Group A **Passenger Vehicles** (Vehicles <= 8,500 lbs LDA, LDT1, LDT2, MDV) Pavley Standards Applicable[10]	Single-Family Housing	*17 796*	*6 495 401*	Primary	85.0%	Home-Based Work	32.9%	12.7	2 136 987	23 757 953	**237.0**	**389.2**	507	9 246	9 753	10 266
				Diverted	10.0%	Home-Based Shop	18.0%	7.0	1 169 172	7 167 026			277	2 789	3 066	3 228
				Passby	5.0%	Home-Based Other	49.1%	9.5	3 189 242	26 526 521			756	10 323	11 079	11 663
	Strip Mall	*2 669*	*974 324*	Primary	45.0%	Commercial-Based Commute	0.0%	13.3	0	0			0	0	0	0
				Diverted	40.0%	Commercial-Based Non-Work	0.0%	7.4	0	0			0	0	0	0
				Passby	15.0%	Commercial-Based Customer	0.0%	8.9	0	0			0	0	0	0
	Entertainment Center	*28 259*	*10 314 535*	Primary	90.0%	Commercial-Based Commute	0.0%	13.3	0	0			0	0	0	0
				Diverted	10.0%	Commercial-Based Non-Work	0.0%	7.4	0	0			0	0	0	0
				Passby	0.0%	Commercial-Based Customer	0.0%	8.9	0	0			0	0	0	0
	Hotel	*4 460*	*1 627 900*	Primary	60.0%	Commercial-Based Commute	0.0%	13.3	0	0			0	0	0	0
				Diverted	35.0%	Commercial-Based Non-Work	0.0%	7.4	0	0			0	0	0	0
				Passby	5.0%	Commercial-Based Customer	0.0%	8.9	0	0			0	0	0	0
	General Office Building	*16 630*	*6 069 950*	Primary	75.0%	Commercial-Based Commute	0.0%	13.3	0	0			0	0	0	0
				Diverted	20.0%	Commercial-Based Non-Work	0.0%	7.4	0	0			0	0	0	0
				Passby	5.0%	Commercial-Based Customer	0.0%	8.9	0	0			0	0	0	0
	Studio/Production Support	*11 520*	*4 204 800*	Primary	75.0%	Commercial-Based Commute	0.0%	13.3	0	0			0	0	0	0
				Diverted	20.0%	Commercial-Based Non-Work	0.0%	7.4	0	0			0	0	0	0
				Passby	5.0%	Commercial-Based Customer	0.0%	8.9	0	0			0	0	0	0
	All Land Uses	***81,334***	***29,686,910***	***	***	**Subtotal for Group A Vehicles**			**6,495,401**	**57,451,500**	**237.04**	**389.17**	**1,540**	**22,359**	**23,898**	**25,156**
Group B **Commercial Vehicles** (Vehicles > 8,500 lbs LHDT1, LHDT2, MHDT, HHDT) Pavley Standards Not Applicable; Heavy-Duty Standards Applicable for HHDT and some MHDT[11]	Single-Family Housing	*17 796*	*6 495 401*	Primary	85.0%	Home-Based Work	0.0%	12.7	0	0	**212.3**	**1184.8**	0	0	0	0
				Diverted	10.0%	Home-Based Shop	0.0%	7.0	0	0			0	0	0	0
				Passby	5.0%	Home-Based Other	0.0%	9.5	0	0			0	0	0	0
	Strip Mall	*2 669*	*974 324*	Primary	45.0%	Commercial-Based Commute	0.0%	13.3	0	0			0	0	0	0
				Diverted	40.0%	Commercial-Based Non-Work	1.0%	7.4	9 743	39 801			2	47	49	52
				Passby	15.0%	Commercial-Based Customer	0.0%	8.9	0	0			0	0	0	0
	Entertainment Center	*28 259*	*10 314 535*	Primary	90.0%	Commercial-Based Commute	0.0%	13.3	0	0			0	0	0	0
				Diverted	10.0%	Commercial-Based Non-Work	1.0%	7.4	103 145	706 030			22	836	858	904
				Passby	0.0%	Commercial-Based Customer	0.0%	8.9	0	0			0	0	0	0
	Hotel	*4 460*	*1 627 900*	Primary	60.0%	Commercial-Based Commute	0.0%	13.3	0	0			0	0	0	0
				Diverted	35.0%	Commercial-Based Non-Work	2.5%	7.4	40 698	207 252			9	246	254	268
				Passby	5.0%	Commercial-Based Customer	0.0%	8.9	0	0			0	0	0	0
	General Office Building	*16 630*	*6 069 950*	Primary	75.0%	Commercial-Based Commute	0.0%	13.3	0	0			0	0	0	0
				Diverted	20.0%	Commercial-Based Non-Work	17.5%	7.4	1 062 241	6 293 779			226	7 457	7 682	8 086
				Passby	5.0%	Commercial-Based Customer	0.0%	8.9	0	0			0	0	0	0
	Studio/Production Support	*11 520*	*4 204 800*	Primary	75.0%	Commercial-Based Commute	0.0%	13.3	0	0			0	0	0	0
				Diverted	20.0%	Commercial-Based Non-Work	17.5%	7.4	735 840	4 359 852			156	5 165	5 322	5 602
				Passby	5.0%	Commercial-Based Customer	0.0%	8.9	0	0			0	0	0	0
	All Land Uses	***81,334***	***29,686,910***	***	***	**Subtotal for Group B Vehicles**			**1,951,667**	**11,606,714**	**212.3**	**1184.8**	**414**	**13,751**	**14,165**	**14,911**
Total for All Vehicles		**81,334**	**29,686,910**	***	***	**Total for All Vehicles**			**8,447,069**	**69,058,214**	***	***	**1,954**	**36,110**	**38,064**	**40,067**

Abbreviations:
CO_2 - carbon dioxide
CO_2e - carbon dioxide equivalent
TDM - Transportation Demand Management Program
URBEMIS - URBan EMISsions modeling software
VMT - vehicle miles traveled
Vehicle Classes (from EMFAC User Guide)
lbs - pounds

Abbreviations cont'd:
Vehicle Classes (from EMFAC User Guide)
LDA - Light Duty Auto (Passenger Cars)
LDT1, LDT2 - Light-Duty Trucks (0-3,750 lbs; 3,751-5,750 lbs)
MDV - Medium Duty Trucks (5,751-8,500 lbs)
LHDT1, LHDT2 - Light-Heavy-Duty Trucks (8,501-10,000 lbs; 10,001-14,000 lbs)
MHDT - Medium-Heavy-Duty Trucks (14,001-33,000 lbs)
HHDT - Heavy-Heavy-Duty Trucks (33,001-60,000 lbs)

Notes:
1. URBEMIS does not contain default settings for "Entertainment Center" and "Studio/Production Support"; "Entertainment Center" was based on URBEMIS default "general land use" settings, and "Studio/Production Support" was based on General Office Building settings.
2. Daily number of trips are based on information provided in the NBC Universal Evolution Plan. Trips are assumed to be one-way.
3. Annual number of trips = Daily number of trips*365
4. % trip type data are URBEMIS defaults for each land use type.
5. Trip purpose categories and the associated trip lengths are URBEMIS defaults for each land use type. % trip purpose data are based on URBEMIS defaults and the following assumptions made by ENVIRON a) All home-based trips are performed by Group A vehicles only; b) All commercial-based non-work trips are performed by Group B vehicles only.
6. VMT was adjusted to account for diverted and pass-by trips using the following default information from URBEMIS diverted trip length is assumed to be 25% of primary trip length. Pass-by trip length is assumed to be 0.1 miles.
7. Startup emission factors are taken from EMFAC. ENVIRON applied the conservative assumption of 720 minutes (12 hours) between startups. For Group B vehicles, the EMFAC startup emission factors are weighted by truck type based on an estimate of truck activity at the site, consistent with the Air Quality analysis.
8. Running emission factors are taken from EMFAC at 30 mph (URBEMIS default). For Group B vehicles, the EMFAC running emission factors are weighted by truck type based on an estimate of truck activity at the site, consistent with the Air Quality analysis.
9. $CO_2e=CO_2/0.95$ The United States Environmental Protection Agency (USEPA) recommends assuming that CH , N_2O, and HFCs are 5% of emissions on a CO_2e basis.
10. AB 1493 ("the Pavley Standard") refers to the reduction of GHG emissions from noncommercial passenger vehicles and light and medium-duty trucks of model year 2009 and thereafter, as required by the state of California (see ARB 2008a). The regulated vehicle classes are shown here for comparison purposes only; a reduction in GHG emissions is not applied in this calculation scenario.
11. ARB adopted a regulation to reduce greenhouse gas emissions by improving the fuel efficiency of heavy-duty trucks (see ARB 2008b). The regulated vehicle classes are shown here for comparison purposes only; a reduction in GHG emissions is not applied in this calculation scenario.

Sources:

Gibson Transportation, Raju Associates, 2010. Transportation Study for the Universal City Evolution Plan Environmental Impact Report.
SCAQMD, 2007. URBEMIS2007 for Windows. November. http //www.urbemis.com/
CARB, 2007. EMFAC2007. http //www.arb.ca.gov/msei/onroad/latest_version.htm
California Air Resources Board (ARB). 2008a. Comparison of Greenhouse Gas Reductions For the United States and Canada Under U.S. CAFE Standards and California Air Resources Board Greenhouse Gas Regulations. Available at http //www.arb.ca.gov/cc/ccms/reports/pavleycafe_reportfeb25_08.pdf.
California Air Resources Board (ARB). 2008b. Public hearing to consider adoption of the regulation to reduce greenhouse gas emissions from heavy-duty vehicles. October. Available at http //www.arb.ca.gov/regact/2008/ghghdv08/ghgisor.pdf.

Table H.7.-3B. CO_2 Emissions (with TDM) in Project Year 2020 (Full Site - growth only)
NBC Universal
Evolution Plan

Vehicle Class	Land Use	*Total Number of Trips completed by All (Group A + Group B) Vehicles*		Trip Characteristics					Number of Trips and VMT completed by Group X of Vehicles		Emission Factors		Annual Emissions			
	Categories for URBEMIS[1]	*Total Daily Trips*[2]	*Total Annual Trips*[3]	Trip Type	% Trip Type[4]	Trip Purpose[5]	% Trip Purpose[5]	Trip Length [by Trip Purpose][5] (miles)	Annual Trips	Annual VMT[7] (miles)	Startup[8] (g/start)	Running[9] (g/mile)	Annual Startup CO_2 Emissions (tonnes)	Annual Running CO_2 Emissions (tonnes)	Total Annual CO_2 Emissions (tonnes)	Total Annual CO_2e Emissions[10] (tonnes)
Group A **Passenger Vehicles** (Vehicles <= 8,500 lbs LDA, LDT1, LDT2, MDV) Pavley Standards Applicable[11]	Single-Family Housing	*17 796*	*6 495 401*	Primary	85.0%	Home-Based Work	32.9%	12.7	1 686 083	18 745 025	**237.0**	**389.2**	400	7 295	7 695	8 100
				Diverted	10.0%	Home-Based Shop	18.0%	7.0	922 477	5 654 783			219	2 201	2 419	2 547
				Passby	5.0%	Home-Based Other	49.1%	9.5	2,516,312	20,929,425			596	8,145	8,742	9,202
	Strip Mall	*2 669*	*974 324*	Primary	45.0%	Commercial-Based Commute	0.0%	13.3	0	0			0	0	0	0
				Diverted	40.0%	Commercial-Based Non-Work	0.0%	7.4	0	0			0	0	0	0
				Passby	15.0%	Commercial-Based Customer	0.0%	8.9	0	0			0	0	0	0
	Entertainment Center	*28 259*	*10 314 535*	Primary	90.0%	Commercial-Based Commute	0.0%	13.3	0	0			0	0	0	0
				Diverted	10.0%	Commercial-Based Non-Work	0.0%	7.4	0	0			0	0	0	0
				Passby	0.0%	Commercial-Based Customer	0.0%	8.9	0	0			0	0	0	0
	Hotel	*4 460*	*1 627 900*	Primary	60.0%	Commercial-Based Commute	0.0%	13.3	0	0			0	0	0	0
				Diverted	35.0%	Commercial-Based Non-Work	0.0%	7.4	0	0			0	0	0	0
				Passby	5.0%	Commercial-Based Customer	0.0%	8.9	0	0			0	0	0	0
	General Office Building	*16 630*	*6 069 950*	Primary	75.0%	Commercial-Based Commute	0.0%	13.3	0	0			0	0	0	0
				Diverted	20.0%	Commercial-Based Non-Work	0.0%	7.4	0	0			0	0	0	0
				Passby	5.0%	Commercial-Based Customer	0.0%	8.9	0	0			0	0	0	0
	Studio/Production Support	*11 520*	*4 204 800*	Primary	75.0%	Commercial-Based Commute	0.0%	13.3	0	0			0	0	0	0
				Diverted	20.0%	Commercial-Based Non-Work	0.0%	7.4	0	0			0	0	0	0
				Passby	5.0%	Commercial-Based Customer	0.0%	8.9	0	0			0	0	0	0
	All Land Uses	***81,334***	***29,686,910***	***	***	**Subtotal for Group A Vehicles**			**5,124,872**	**45,329,233**	**237.04**	**389.17**	**1,215**	**17,641**	**18,856**	**19,848**
Group B **Commercial Vehicles** (Vehicles > 8,500 lbs LHDT1, LHDT2, MHDT, HHDT) Pavley Standards Not Applicable; Heavy-Duty Standards Applicable for HHDT and some MHDT[12]	Single-Family Housing	*17 796*	*6 495 401*	Primary	85.0%	Home-Based Work	0.0%	12.7	0	0	**212.3**	**1184.8**	0	0	0	0
				Diverted	10.0%	Home-Based Shop	0.0%	7.0	0	0			0	0	0	0
				Passby	5.0%	Home-Based Other	0.0%	9.5	0	0			0	0	0	0
	Strip Mall	*2 669*	*974 324*	Primary	45.0%	Commercial-Based Commute	0.0%	13.3	0	0			0	0	0	0
				Diverted	40.0%	Commercial-Based Non-Work	1.0%	7.4	9,743	39,801			2	47	49	52
				Passby	15.0%	Commercial-Based Customer	0.0%	8.9	0	0			0	0	0	0
	Entertainment Center	*28 259*	*10 314 535*	Primary	90.0%	Commercial-Based Commute	0.0%	13.3	0	0			0	0	0	0
				Diverted	10.0%	Commercial-Based Non-Work	1.0%	7.4	95 203	651 666			20	772	792	834
				Passby	0.0%	Commercial-Based Customer	0.0%	8.9	0	0			0	0	0	0
	Hotel	*4 460*	*1 627 900*	Primary	60.0%	Commercial-Based Commute	0.0%	13.3	0	0			0	0	0	0
				Diverted	35.0%	Commercial-Based Non-Work	2.5%	7.4	37,564	191,294			8	227	235	247
				Passby	5.0%	Commercial-Based Customer	0.0%	8.9	0	0			0	0	0	0
	General Office Building	*16 630*	*6 069 950*	Primary	75.0%	Commercial-Based Commute	0.0%	13.3	0	0			0	0	0	0
				Diverted	20.0%	Commercial-Based Non-Work	17.5%	7.4	795 619	4 714 041			169	5 585	5 754	6 057
				Passby	5.0%	Commercial-Based Customer	0.0%	8.9	0	0			0	0	0	0
	Studio/Production Support	*11 520*	*4 204 800*	Primary	75.0%	Commercial-Based Commute	0.0%	13.3	0	0			0	0	0	0
				Diverted	20.0%	Commercial-Based Non-Work	17.5%	7.4	646,068	3,827,950			137	4,535	4,672	4,918
				Passby	5.0%	Commercial-Based Customer	0.0%	8.9	0	0			0	0	0	0
	All Land Uses	***81,334***	***29,686,910***	***	***	**Subtotal for Group B Vehicles**			**1,584,196**	**9,424,751**	**212.3**	**1184.8**	**336**	**11,166**	**11,502**	**12,108**
Total for All Vehicles		**81,334**	**29,686,910**	***	***	**Total for All Vehicles**			**6,709,068**	**54,753,984**	***	***	**1,551**	**28,807**	**30,358**	**31,956**

Abbreviations:
CO_2 - carbon dioxide
CO_2e - carbon dioxide equivalent
TDM - Transportation Demand Management Program
URBEMIS - URBan EMISsions modeling software
VMT - vehicle miles traveled
Vehicle Classes (from EMFAC User Guide)
lbs - pounds

Abbreviations cont'd:
Vehicle Classes (from EMFAC User Guide)
LDA - Light Duty Auto (Passenger Cars)
LDT1, LDT2 - Light-Duty Trucks (0-3,750 lbs; 3,751-5,750 lbs)
MDV - Medium Duty Trucks (5,751-8,500 lbs)
LHDT1, LHDT2 - Light-Heavy-Duty Trucks (8,501-10,000 lbs; 10,001-14,000 lbs)
MHDT - Medium-Heavy-Duty Trucks (14,001-33,000 lbs)
HHDT - Heavy-Heavy-Duty Trucks (33,001-60,000 lbs)

Notes:
1. URBEMIS does not contain default settings for "Entertainment Center" and "Studio/Production Support"; "Entertainment Center" was based on URBEMIS default "general land use" settings, and "Studio/Production Support" was based on General Office Building settings.
2. Daily number of trips are based on information provided in the NBC Universal Evolution Plan. Trips are assumed to be one-way.
3. Annual number of trips = Daily number of trips*365
4. % trip type data are URBEMIS defaults for each land use type.
5. Trip purpose categories and the associated trip lengths are URBEMIS defaults for each land use type. % trip purpose data are based on URBEMIS defaults and the following assumptions made by ENVIRON a) All home-based trips are performed by Group A vehicles only; b) All commercial-based non-work trips are performed by Group B vehicles only.
6. % trip reduction data are based on information provided in Table 18 of the NBC Universal Evolution Plan Transportation Study.
7. VMT was adjusted to account for diverted and pass-by trips using the following default information from URBEMIS diverted trip length is assumed to be 25% of primary trip length. Pass-by trip length is assumed to be 0.1 miles.
8. Startup emission factors are taken from EMFAC. ENVIRON applied the conservative assumption of 720 minutes (12 hours) between startups. For Group B vehicles, the EMFAC startup emission factors are weighted by truck type based on an estimate of truck activity at the site, consistent with the Air Quality analysis.
9. Running emission factors are taken from EMFAC at 30 mph (URBEMIS default). For Group B vehicles, the EMFAC running emission factors are weighted by truck type based on an estimate of truck activity at the site, consistent with the Air Quality analysis.
10. $CO_2e=CO_2/0.95$ The United States Environmental Protection Agency (USEPA) recommends assuming that CH , N_2O, and HFCs are 5% of emissions on a CO_2e basis.
11. AB 1493 ("the Pavley Standard") refers to the reduction of GHG emissions from noncommercial passenger vehicles and light and medium-duty trucks of model year 2009 and thereafter, as required by the state of California (see ARB 2008a). The regulated vehicle classes are shown here for comparison purposes only; a reduction in GHG emissions is not applied in this calculation scenario.
12. ARB adopted a regulation to reduce greenhouse gas emissions by improving the fuel efficiency of heavy-duty trucks (see ARB 2008b). The regulated vehicle classes are shown here for comparison purposes only; a reduction in GHG emissions is not applied in this calculation scenario.

Sources:

Gibson Transportation, Raju Associates, 2010. Transportation Study for the Universal City Evolution Plan Environmental Impact Report.
SCAQMD, 2007. URBEMIS2007 for Windows. November. http //www.urbemis.com/
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California Air Resources Board (ARB). 2008a. Comparison of Greenhouse Gas Reductions For the United States and Canada Under U.S. CAFE Standards and California Air Resources Board Greenhouse Gas Regulations. Available at http //www.arb.ca.gov/cc/ccms/reports/pavleycafe_reportfeb25_08.pdf.
California Air Resources Board (ARB). 2008b. Public hearing to consider adoption of the regulation to reduce greenhouse gas emissions from heavy-duty vehicles. October. Available at http //www.arb.ca.gov/regact/2008/ghghdv08/ghgisor.pdf.

Table H.7.-3C. CO_2 Emissions (with TDM, Pavley, and Heavy-Duty Standards) in Project Year 2020 (Full Site - growth only)
NBC Universal
Evolution Plan

Vehicle Class	Land Use	*Total Number of Trips completed by All (Group A + Group B) Vehicles*		Trip Characteristics					Number of Trips and VMT completed by Group X of Vehicles		Emission Factors		Annual Emissions			
	Categories for URBEMIS[1]	*Total Daily Trips*[2]	*Total Annual Trips*[3]	Trip Type	% Trip Type[4]	Trip Purpose[5]	% Trip Purpose[5]	Trip Length [by Trip Purpose][5] (miles)	Annual Trips	Annual VMT[7] (miles)	Startup[8] (g/start)	Running[9] (g/mile)	Annual Startup CO_2 Emissions (tonnes)	Annual Running CO_2 Emissions (tonnes)	Total Annual CO_2 Emissions (tonnes)	Total Annual CO_2e Emissions[10] (tonnes)
Group A Passenger Vehicles (Vehicles <= 8,500 lbs LDA, LDT1, LDT2, MDV) Pavley Standards Applicable[11]	Single-Family Housing	*17 796*	*6 495 401*	Primary	85.0%	Home-Based Work	32.9%	12.7	1 686 083	18 745 025	**189.0**	**310.4**	319	5 818	6 136	6 459
				Diverted	10.0%	Home-Based Shop	18.0%	7.0	922 477	5 654 783			174	1 755	1 929	2 031
				Passby	5.0%	Home-Based Other	49.1%	9.5	2 516 312	20 929 425			476	6 495	6 971	7 338
	Strip Mall	*2 669*	*974 324*	Primary	45.0%	Commercial-Based Commute	0.0%	13.3	0	0			0	0	0	0
				Diverted	40.0%	Commercial-Based Non-Work	0.0%	7.4	0	0			0	0	0	0
				Passby	15.0%	Commercial-Based Customer	0.0%	8.9	0	0			0	0	0	0
	Entertainment Center	*28 259*	*10 314 535*	Primary	90.0%	Commercial-Based Commute	0.0%	13.3	0	0			0	0	0	0
				Diverted	10.0%	Commercial-Based Non-Work	0.0%	7.4	0	0			0	0	0	0
				Passby	0.0%	Commercial-Based Customer	0.0%	8.9	0	0			0	0	0	0
	Hotel	*4 460*	*1 627 900*	Primary	60.0%	Commercial-Based Commute	0.0%	13.3	0	0			0	0	0	0
				Diverted	35.0%	Commercial-Based Non-Work	0.0%	7.4	0	0			0	0	0	0
				Passby	5.0%	Commercial-Based Customer	0.0%	8.9	0	0			0	0	0	0
	General Office Building	*16 630*	*6 069 950*	Primary	75.0%	Commercial-Based Commute	0.0%	13.3	0	0			0	0	0	0
				Diverted	20.0%	Commercial-Based Non-Work	0.0%	7.4	0	0			0	0	0	0
				Passby	5.0%	Commercial-Based Customer	0.0%	8.9	0	0			0	0	0	0
	Studio/Production Support	*11 520*	*4 204 800*	Primary	75.0%	Commercial-Based Commute	0.0%	13.3	0	0			0	0	0	0
				Diverted	20.0%	Commercial-Based Non-Work	0.0%	7.4	0	0			0	0	0	0
				Passby	5.0%	Commercial-Based Customer	0.0%	8.9	0	0			0	0	0	0
	All Land Uses	***81,334***	***29,686,910***	***	***	**Subtotal for Group A Vehicles**			**5,124,872**	**45,329,233**	**189.03**	**310.35**	**969**	**14,068**	**15,037**	**15,828**
Group B Commercial Vehicles (Vehicles > 8,500 lbs LHDT1, LHDT2, MHDT, HHDT) Pavley Standards Not Applicable; Heavy-Duty Standards Applicable for HHDT and some MHDT[12]	Single-Family Housing	*17 796*	*6 495 401*	Primary	85.0%	Home-Based Work	0.0%	12.7	0	0	**212.3**	**1132.9**	0	0	0	0
				Diverted	10.0%	Home-Based Shop	0.0%	7.0	0	0			0	0	0	0
				Passby	5.0%	Home-Based Other	0.0%	9.5	0	0			0	0	0	0
	Strip Mall	*2 669*	*974 324*	Primary	45.0%	Commercial-Based Commute	0.0%	13.3	0	0			0	0	0	0
				Diverted	40.0%	Commercial-Based Non-Work	1.0%	7.4	9 743	39 801			2	45	47	50
				Passby	15.0%	Commercial-Based Customer	0.0%	8.9	0	0			0	0	0	0
	Entertainment Center	*28 259*	*10 314 535*	Primary	90.0%	Commercial-Based Commute	0.0%	13.3	0	0			0	0	0	0
				Diverted	10.0%	Commercial-Based Non-Work	1.0%	7.4	95 203	651 666			20	738	758	798
				Passby	0.0%	Commercial-Based Customer	0.0%	8.9	0	0			0	0	0	0
	Hotel	*4 460*	*1 627 900*	Primary	60.0%	Commercial-Based Commute	0.0%	13.3	0	0			0	0	0	0
				Diverted	35.0%	Commercial-Based Non-Work	2.5%	7.4	37 564	191 294			8	217	225	237
				Passby	5.0%	Commercial-Based Customer	0.0%	8.9	0	0			0	0	0	0
	General Office Building	*16 630*	*6 069 950*	Primary	75.0%	Commercial-Based Commute	0.0%	13.3	0	0			0	0	0	0
				Diverted	20.0%	Commercial-Based Non-Work	17.5%	7.4	795 619	4 714 041			169	5 341	5 509	5 799
				Passby	5.0%	Commercial-Based Customer	0.0%	8.9	0	0			0	0	0	0
	Studio/Production Support	*11 520*	*4 204 800*	Primary	75.0%	Commercial-Based Commute	0.0%	13.3	0	0			0	0	0	0
				Diverted	20.0%	Commercial-Based Non-Work	17.5%	7.4	646 068	3 827 950			137	4 337	4 474	4 709
				Passby	5.0%	Commercial-Based Customer	0.0%	8.9	0	0			0	0	0	0
	All Land Uses	***81,334***	***29,686,910***	***	***	**Subtotal for Group B Vehicles**			**1,584,196**	**9,424,751**	**212.3**	**1132.9**	**336**	**10,677**	**11,014**	**11,593**
Total for All Vehicles		**81,334**	**29,686,910**	***	***	**Total for All Vehicles**			**6,709,068**	**54,753,984**	***	***	**1,305**	**24,745**	**26,050**	**27,421**

Abbreviations:
CO_2 - carbon dioxide
CO_2e - carbon dioxide equivalent
TDM - Transportation Demand Management Program
URBEMIS - URBan EMISsions modeling software
VMT - vehicle miles traveled
Vehicle Classes (from EMFAC User Guide)
lbs - pounds

Abbreviations cont'd:
Vehicle Classes (from EMFAC User Guide)
LDA - Light Duty Auto (Passenger Cars)
LDT1, LDT2 - Light-Duty Trucks (0-3,750 lbs; 3,751-5,750 lbs)
MDV - Medium Duty Trucks (5,751-8,500 lbs)
LHDT1, LHDT2 - Light-Heavy-Duty Trucks (8,501-10,000 lbs; 10,001-14,000 lbs)
MHDT - Medium-Heavy-Duty Trucks (14,001-33,000 lbs)
HHDT - Heavy-Heavy-Duty Trucks (33,001-60,000 lbs)

Notes:
1. URBEMIS does not contain default settings for "Entertainment Center" and "Studio/Production Support"; "Entertainment Center" was based on URBEMIS default "general land use" settings, and "Studio/Production Support" was based on General Office Building settings.
2. Daily number of trips are based on information provided in the NBC Universal Evolution Plan. Trips are assumed to be one-way.
3. Annual number of trips = Daily number of trips*365
4. % trip type data are URBEMIS defaults for each land use type.
5. Trip purpose categories and the associated trip lengths are URBEMIS defaults for each land use type. % trip purpose data are based on URBEMIS defaults and the following assumptions made by ENVIRON a) All home-based trips are performed by Group A vehicles only; b) All commercial-based non-work trips are performed by Group B vehicles only.
6. % trip reduction data are based on information provided in Table 18 of the NBC Universal Evolution Plan Transportation Study.
7. VMT was adjusted to account for diverted and pass-by trips using the following default information from URBEMIS diverted trip length is assumed to be 25% of primary trip length. Pass-by trip length is assumed to be 0.1 miles.
8. Startup emission factors are taken from EMFAC. ENVIRON applied the conservative assumption of 720 minutes (12 hours) between startups. For Group B vehicles, the EMFAC startup emission factors are weighted by truck type based on an estimate of truck activity at the site, consistent with the Air Quality analysis.
9. Running emission factors are taken from EMFAC at 30 mph (URBEMIS default). For Group B vehicles, the EMFAC running emission factors are weighted by truck type based on an estimate of truck activity at the site, consistent with the Air Quality analysis.
10. $CO_2e=CO_2/0.95$ The United States Environmental Protection Agency (USEPA) recommends assuming that CH , N_2O, and HFCs are 5% of emissions on a CO_2e basis.
11. A 20.25% reduction in starting and running emissions was taken to account for the AB 1493 "Pavley Standards" for noncommercial passenger vehicles and light and medium-duty trucks. The percent reduction was based on data for year 2020 in Table 11 of the 2008a ARB report. This reduction was applied to both the startup and running emission factors.
12. An 8.77% reduction in the running emissions of all HHDT and some MHDT was taken to account for the ARB Heavy Duty Vehicle Greenhouse Gas Measure. The percent reduction was based on data for year 2020 in Table XI-2 in the 2008b ARB report. This 8.8% reduction was applied to 37% of MHDT assuming an even distribution of vehicles throughout the MHDT weight class. This reduction was applied to the running emission factor only.

Sources:

Gibson Transportation, Raju Associates, 2010. Transportation Study for the Universal City Evolution Plan Environmental Impact Report.
SCAQMD, 2007. URBEMIS2007 for Windows. November. http //www.urbemis.com/
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California Air Resources Board (ARB). 2008b. Public hearing to consider adoption of the regulation to reduce greenhouse gas emissions from heavy-duty vehicles. October. Available at http //www.arb.ca.gov/regact/2008/ghghdv08/ghgisor.pdf.

Table H.7.-4A. CO_2 Emissions in Project Year 2020 (Full Site - growth only, reduced trip length)
NBC Universal
Evolution Plan

Vehicle Class	Land Use		Total Number of Trips completed by All (Group A + Group B) Vehicles		Trip Characteristics					Number of Trips and VMT completed by Group X of Vehicles		Emission Factors		Annual Emissions			
	per Project Transprotation Study	Categories for URBEMIS[1]	Total Daily Trips[2]	Total Annual Trips[3]	Trip Type	% Trip Type[4]	Trip Purpose[5]	% Trip Purpose[5]	Trip Length [by Trip Purpose][5] (miles)	Annual Trips	Annual VMT[6] (miles)	Startup[7] (g/start)	Running[8] (g/mile)	Annual Startup CO_2 Emissions (tonnes)	Annual Running CO_2 Emissions (tonnes)	Total Annual CO_2 Emissions (tonnes)	Total Annual CO_2e Emissions[9] (tonnes)
Group A **Passenger Vehicles** (Vehicles <= 8,500 lbs LDA, LDT1, LDT2, MDV) Pavley Standards Applicable[10]	Mixed-Use Residential Area	Single-Family Housing	*17 796*	*6 495 401*	Primary	85.0%	Home-Based Work	32.9%	10.3	2,136,987	19,288,979	**237.0**	**389.2**	507	7,507	8,013	8,435
					Diverted	10.0%	Home-Based Shop	18.0%	7.0	1,169,172	7,167,026			277	2,789	3,066	3,228
					Passby	5.0%	Home-Based Other	49.1%	9.5	3 189 242	26 526 521			756	10 323	11 079	11 663
		Strip Mall	*2 669*	*974 324*	Primary	45.0%	Commercial-Based Commute	0.0%	13.3	0	0			0	0	0	0
					Diverted	40.0%	Commercial-Based Non-Work	0.0%	7.4	0	0			0	0	0	0
					Passby	15.0%	Commercial-Based Customer	0.0%	8.9	0	0			0	0	0	0
	Entertainment Area	Entertainment Center	*28 259*	*10 314 535*	Primary	90.0%	Commercial-Based Commute	0.0%	13.3	0	0			0	0	0	0
					Diverted	10.0%	Commercial-Based Non-Work	0.0%	7.4	0	0			0	0	0	0
					Passby	0.0%	Commercial-Based Customer	0.0%	8.9	0	0			0	0	0	0
		Hotel	*4 460*	*1 627 900*	Primary	60.0%	Commercial-Based Commute	0.0%	13.3	0	0			0	0	0	0
					Diverted	35.0%	Commercial-Based Non-Work	0.0%	7.4	0	0			0	0	0	0
					Passby	5.0%	Commercial-Based Customer	0.0%	8.9	0	0			0	0	0	0
	Business Area	General Office Building	*16 630*	*6 069 950*	Primary	75.0%	Commercial-Based Commute	0.0%	13.3	0	0			0	0	0	0
					Diverted	20.0%	Commercial-Based Non-Work	0.0%	7.4	0	0			0	0	0	0
					Passby	5.0%	Commercial-Based Customer	0.0%	8.9	0	0			0	0	0	0
	Studio Area	Studio/Production Support	*11 520*	*4 204 800*	Primary	75.0%	Commercial-Based Commute	0.0%	13.3	0	0			0	0	0	0
					Diverted	20.0%	Commercial-Based Non-Work	0.0%	7.4	0	0			0	0	0	0
					Passby	5.0%	Commercial-Based Customer	0.0%	8.9	0	0			0	0	0	0
	All Land Uses		***81,334***	***29,686,910***	***	***	**Subtotal for Group A Vehicles**			**6,495,401**	**52,982,526**	**237.04**	**389.17**	**1,540**	**20,619**	**22,159**	**23,325**
Group B **Commercial Vehicles** (Vehicles > 8,500 lbs LHDT1, LHDT2, MHDT, HHDT) Pavley Standards Not Applicable; Heavy-Duty Standards Applicable for HHDT and some MHDT[11]	Mixed-Use Residential Area	Single-Family Housing	*17 796*	*6 495 401*	Primary	85.0%	Home-Based Work	0.0%	10.3	0	0	**212.3**	**1184.8**	0	0	0	0
					Diverted	10.0%	Home-Based Shop	0.0%	7.0	0	0			0	0	0	0
					Passby	5.0%	Home-Based Other	0.0%	9.5	0	0			0	0	0	0
		Strip Mall	*2 669*	*974 324*	Primary	45.0%	Commercial-Based Commute	0.0%	13.3	0	0			0	0	0	0
					Diverted	40.0%	Commercial-Based Non-Work	1.0%	7.4	9,743	39,801			2	47	49	52
					Passby	15.0%	Commercial-Based Customer	0.0%	8.9	0	0			0	0	0	0
	Entertainment Area	Entertainment Center	*28 259*	*10 314 535*	Primary	90.0%	Commercial-Based Commute	0.0%	13.3	0	0			0	0	0	0
					Diverted	10.0%	Commercial-Based Non-Work	1.0%	7.4	103,145	706,030			22	836	858	904
					Passby	0.0%	Commercial-Based Customer	0.0%	8.9	0	0			0	0	0	0
		Hotel	*4 460*	*1 627 900*	Primary	60.0%	Commercial-Based Commute	0.0%	13.3	0	0			0	0	0	0
					Diverted	35.0%	Commercial-Based Non-Work	2.5%	7.4	40,698	207,252			9	246	254	268
					Passby	5.0%	Commercial-Based Customer	0.0%	8.9	0	0			0	0	0	0
	Business Area	General Office Building	*16 630*	*6 069 950*	Primary	75.0%	Commercial-Based Commute	0.0%	13.3	0	0			0	0	0	0
					Diverted	20.0%	Commercial-Based Non-Work	17.5%	7.4	1,062,241	6,293,779			226	7,457	7,682	8,086
					Passby	5.0%	Commercial-Based Customer	0.0%	8.9	0	0			0	0	0	0
	Studio Area	Studio/Production Support	*11 520*	*4 204 800*	Primary	75.0%	Commercial-Based Commute	0.0%	13.3	0	0			0	0	0	0
					Diverted	20.0%	Commercial-Based Non-Work	17.5%	7.4	735,840	4,359,852			156	5,165	5,322	5,602
					Passby	5.0%	Commercial-Based Customer	0.0%	8.9	0	0			0	0	0	0
	All Land Uses		***81,334***	***29,686,910***	***	***	**Subtotal for Group B Vehicles**			**1,951,667**	**11,606,714**	**212.3**	**1184.8**	**414**	**13,751**	**14,165**	**14,911**
Total for All Vehicles			**81,334**	**29,686,910**	***	***	**Total for All Vehicles**			**8,447,069**	**64,589,240**	***	***	**1,954**	**34,370**	**36,325**	**38,236**

Abbreviations:
CO_2 - carbon dioxide
CO_2e - carbon dioxide equivalent
TDM - Transportation Demand Management Program
URBEMIS - URBan EMISsions modeling software
VMT - vehicle miles traveled
Vehicle Classes (from EMFAC User Guide)
lbs - pounds

Abbreviations cont'd:
Vehicle Classes (from EMFAC User Guide)
LDA - Light Duty Auto (Passenger Cars)
LDT1, LDT2 - Light-Duty Trucks (0-3,750 lbs; 3,751-5,750 lbs)
MDV - Medium Duty Trucks (5,751-8,500 lbs)
LHDT1, LHDT2 - Light-Heavy-Duty Trucks (8,501-10,000 lbs; 10,001-14,000 lbs)
MHDT - Medium-Heavy-Duty Trucks (14,001-33,000 lbs)
HHDT - Heavy-Heavy-Duty Trucks (33,001-60,000 lbs)

Notes:
1. URBEMIS does not contain default settings for "Entertainment Center" and "Studio/Production Support"; "Entertainment Center" was based on URBEMIS default "general land use" settings, and "Studio/Production Support" was based on General Office Building settings.
2. Daily number of trips are based on information provided in the NBC Universal Evolution Plan. Trips are assumed to be one-way.
3. Annual number of trips = Daily number of trips*365
4. % trip type data are URBEMIS defaults for each land use type.
5. Trip purpose categories and the associated trip lengths are URBEMIS defaults for each land use type, with the exception of home-based-work trips, for which a project-specific value was supplied. % trip purpose data are based on URBEMIS defaults and the following assumptions made by ENVIRON a) All home-based trips are performed by Group A vehicle commercial-based non-work trips are performed by Group B vehicles only.
6. VMT was adjusted to account for diverted and pass-by trips using the following default information from URBEMIS diverted trip length is assumed to be 25% of primary trip length. Pass-by trip length is assumed to be 0.1 miles.
7. Startup emission factors are taken from EMFAC. ENVIRON applied the conservative assumption of 720 minutes (12 hours) between startups. For Group B vehicles, the EMFAC startup emission factors are weighted by truck type based on an estimate of truck activity at the site, consistent with the Air Quality analysis.
8. Running emission factors are taken from EMFAC at 30 mph (URBEMIS default). For Group B vehicles, the EMFAC running emission factors are weighted by truck type based on an estimate of truck activity at the site, consistent with the Air Quality analysis.
9. $CO_2e=CO_2/0.95$ The United States Environmental Protection Agency (USEPA) recommends assuming that CH , N_2O, and HFCs are 5% of emissions on a CO_2e basis.
10. AB 1493 ("the Pavley Standard") refers to the reduction of GHG emissions from noncommercial passenger vehicles and light and medium-duty trucks of model year 2009 and thereafter, as required by the state of California (see ARB 2008a). The regulated vehicle classes are shown here for comparison purposes only; a reduction in GHG emissions is not applied in this calculation scenario.
11. ARB adopted a regulation to reduce greenhouse gas emissions by improving the fuel efficiency of heavy-duty trucks (see ARB 2008b). The regulated vehicle classes are shown here for comparison purposes only; a reduction in GHG emissions is not applied in this calculation scenario.

Sources:

Gibson Transportation, Raju Associates, 2010. Transportation Study for the Universal City Evolution Plan Environmental Impact Report.
SCAQMD, 2007. URBEMIS2007 for Windows. November. http //www.urbemis.com/
CARB, 2007. EMFAC2007. http //www.arb.ca.gov/msei/onroad/latest_version.htm
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California Air Resources Board (ARB). 2008b. Public hearing to consider adoption of the regulation to reduce greenhouse gas emissions from heavy-duty vehicles. October. Available at http //www.arb.ca.gov/regact/2008/ghghdv08/ghgisor.pdf.

Table H.7.-4B. CO_2 Emissions (with TDM) in Project Year 2020 (Full Site - growth only, reduced trip length)
NBC Universal
Evolution Plan

Vehicle Class	Land Use		Total Number of Trips completed by All (Group A + Group B) Vehicles		Trip Characteristics							Number of Trips and VMT completed by Group X of Vehicles		Emission Factors		Annual Emissions			
	per Project Transprotation Study	Categories for URBEMIS[1]	Total Daily Trips[2]	Total Annual Trips[3]	Trip Type	% Trip Type[4]	Trip Purpose[5]	% Trip Purpose[5]	Trip Length [by Trip Purpose][5] (miles)	% Trip Reduction due to TDM[6]		Annual Trips	Annual VMT[7] (miles)	Startup[8] (g/start)	Running[9] (g/mile)	Annual Startup CO_2 Emissions (tonnes)	Annual Running CO_2 Emissions (tonnes)	Total Annual CO_2 Emissions (tonnes)	Total Annual CO_2e Emissions[10] (tonnes)
Group A Passenger Vehicles (Vehicles <= 8,500 lbs LDA, LDT1, LDT2, MDV) Pavley Standards Applicable[11]	Mixed-Use Residential Area	Single-Family Housing	17 796	6 495 401	Primary	85.0%	Home-Based Work	32.9%	10.3	21.1%		1,686,083	15,219,005	237.0	389.2	400	5,923	6,323	6,655
					Diverted	10.0%	Home-Based Shop	18.0%	7.0	21.1%		922,477	5,654,783			219	2,201	2,419	2,547
					Passby	5.0%	Home-Based Other	49.1%	9.5	21.1%		2,516,312	20,929,425			596	8,145	8,742	9,202
		Strip Mall	2 669	974 324	Primary	45.0%	Commercial-Based Commute	0.0%	13.3	0.0%		0	0			0	0	0	0
					Diverted	40.0%	Commercial-Based Non-Work	0.0%	7.4	0.0%		0	0			0	0	0	0
					Passby	15.0%	Commercial-Based Customer	0.0%	8.9	0.0%		0	0			0	0	0	0
	Entertainment Area	Entertainment Center	28 259	10 314 535	Primary	90.0%	Commercial-Based Commute	0.0%	13.3	7.7%		0	0			0	0	0	0
					Diverted	10.0%	Commercial-Based Non-Work	0.0%	7.4	7.7%		0	0			0	0	0	0
					Passby	0.0%	Commercial-Based Customer	0.0%	8.9	4.0%		0	0			0	0	0	0
		Hotel	4 460	1 627 900	Primary	60.0%	Commercial-Based Commute	0.0%	13.3	7.7%		0	0			0	0	0	0
					Diverted	35.0%	Commercial-Based Non-Work	0.0%	7.4	7.7%		0	0			0	0	0	0
					Passby	5.0%	Commercial-Based Customer	0.0%	8.9	4.0%		0	0			0	0	0	0
	Business Area	General Office Building	16 630	6 069 950	Primary	75.0%	Commercial-Based Commute	0.0%	13.3	25.1%		0	0			0	0	0	0
					Diverted	20.0%	Commercial-Based Non-Work	0.0%	7.4	25.1%		0	0			0	0	0	0
					Passby	5.0%	Commercial-Based Customer	0.0%	8.9	25.1%		0	0			0	0	0	0
	Studio Area	Studio/Production Support	11 520	4 204 800	Primary	75.0%	Commercial-Based Commute	0.0%	13.3	12.2%		0	0			0	0	0	0
					Diverted	20.0%	Commercial-Based Non-Work	0.0%	7.4	12.2%		0	0			0	0	0	0
					Passby	5.0%	Commercial-Based Customer	0.0%	8.9	12.2%		0	0			0	0	0	0
	All Land Uses		***81,334***	***29,686,910***	***	***	**Subtotal for Group A Vehicles**					**5,124,872**	**41,803,213**	**237.04**	**389.17**	**1,215**	**16,269**	**17,484**	**18,404**
Group B Commercial Vehicles (Vehicles > 8,500 lbs LHDT1, LHDT2, MHDT, HHDT) Pavley Standards Not Applicable; Heavy-Duty Standards Applicable for HHDT and some MHDT[12]	Mixed-Use Residential Area	Single-Family Housing	17 796	6 495 401	Primary	85.0%	Home-Based Work	0.0%	10.3	21.1%		0	0	212.3	1184.8	0	0	0	0
					Diverted	10.0%	Home-Based Shop	0.0%	7.0	21.1%		0	0			0	0	0	0
					Passby	5.0%	Home-Based Other	0.0%	9.5	21.1%		0	0			0	0	0	0
		Strip Mall	2 669	974 324	Primary	45.0%	Commercial-Based Commute	0.0%	13.3	0.0%		0	0			0	0	0	0
					Diverted	40.0%	Commercial-Based Non-Work	1.0%	7.4	0.0%		9 743	39 801			2	47	49	52
					Passby	15.0%	Commercial-Based Customer	0.0%	8.9	0.0%		0	0			0	0	0	0
	Entertainment Area	Entertainment Center	28 259	10 314 535	Primary	90.0%	Commercial-Based Commute	0.0%	13.3	7.7%		0	0			0	0	0	0
					Diverted	10.0%	Commercial-Based Non-Work	1.0%	7.4	7.7%		95,203	651,666			20	772	792	834
					Passby	0.0%	Commercial-Based Customer	0.0%	8.9	4.0%		0	0			0	0	0	0
		Hotel	4 460	1 627 900	Primary	60.0%	Commercial-Based Commute	0.0%	13.3	7.7%		0	0			0	0	0	0
					Diverted	35.0%	Commercial-Based Non-Work	2.5%	7.4	7.7%		37,564	191,294			8	227	235	247
					Passby	5.0%	Commercial-Based Customer	0.0%	8.9	4.0%		0	0			0	0	0	0
	Business Area	General Office Building	16 630	6 069 950	Primary	75.0%	Commercial-Based Commute	0.0%	13.3	25.1%		0	0			0	0	0	0
					Diverted	20.0%	Commercial-Based Non-Work	17.5%	7.4	25.1%		795 619	4 714 041			169	5 585	5 754	6 057
					Passby	5.0%	Commercial-Based Customer	0.0%	8.9	25.1%		0	0			0	0	0	0
	Studio Area	Studio/Production Support	11 520	4 204 800	Primary	75.0%	Commercial-Based Commute	0.0%	13.3	12.2%		0	0			0	0	0	0
					Diverted	20.0%	Commercial-Based Non-Work	17.5%	7.4	12.2%		646,068	3,827,950			137	4,535	4,672	4,918
					Passby	5.0%	Commercial-Based Customer	0.0%	8.9	12.2%		0	0			0	0	0	0
	All Land Uses		***81,334***	***29,686,910***	***	***	**Subtotal for Group B Vehicles**					**1,584,196**	**9,424,751**	**212.3**	**1184.8**	**336**	**11,166**	**11,502**	**12,108**
Total for All Vehicles			**81,334**	**29,686,910**	***	***	**Total for All Vehicles**					**6,709,068**	**51,227,964**	***	***	**1,551**	**27,435**	**28,986**	**30,511**

Abbreviations:
CO_2 - carbon dioxide
CO_2e - carbon dioxide equivalent
TDM - Transportation Demand Management Program
URBEMIS - URBan EMISsions modeling software
VMT - vehicle miles traveled
Vehicle Classes (from EMFAC User Guide)
lbs - pounds

Abbreviations cont'd:
Vehicle Classes (from EMFAC User Guide)
LDA - Light Duty Auto (Passenger Cars)
LDT1, LDT2 - Light-Duty Trucks (0-3,750 lbs; 3,751-5,750 lbs)
MDV - Medium Duty Trucks (5,751-8,500 lbs)
LHDT1, LHDT2 - Light-Heavy-Duty Trucks (8,501-10,000 lbs; 10,001-14,000 lbs)
MHDT - Medium-Heavy-Duty Trucks (14,001-33,000 lbs)
HHDT - Heavy-Heavy-Duty Trucks (33,001-60,000 lbs)

Notes:
1. URBEMIS does not contain default settings for "Entertainment Center" and "Studio/Production Support"; "Entertainment Center" was based on URBEMIS default "general land use" settings, and "Studio/Production Support" was based on General Office Building settings.
2. Daily number of trips are based on information provided in the NBC Universal Evolution Plan. Trips are assumed to be one-way.
3. Annual number of trips = Daily number of trips*365
4. % trip type data are URBEMIS defaults for each land use type.
5. Trip purpose categories and the associated trip lengths are URBEMIS defaults for each land use type, with the exception of home-based-work trips, for which a project-specific value was supplied. % trip purpose data are based on URBEMIS defaults and the following assumptions made by ENVIRON a) All home-based trips are performed by Group A vehicles only; b) All commercial-based non-work trips are performed by Group B vehicles only.
6. % trip reduction data are based on information provided in Table 18 of the NBC Universal Evolution Plan Transportation Study.
7. VMT was adjusted to account for diverted and pass-by trips using the following default information from URBEMIS diverted trip length is assumed to be 25% of primary trip length. Pass-by trip length is assumed to be 0.1 miles.
8. Startup emission factors are taken from EMFAC. ENVIRON applied the conservative assumption of 720 minutes (12 hours) between startups. For Group B vehicles, the EMFAC startup emission factors are weighted by truck type based on an estimate of truck activity at the site, consistent with the Air Quality analysis.
9. Running emission factors are taken from EMFAC at 30 mph (URBEMIS default). For Group B vehicles, the EMFAC running emission factors are weighted by truck type based on an estimate of truck activity at the site, consistent with the Air Quality analysis.
10. $CO_2e=CO_2/0.95$ The United States Environmental Protection Agency (USEPA) recommends assuming that CH , N_2O, and HFCs are 5% of emissions on a CO_2e basis.
11. AB 1493 ("the Pavley Standard") refers to the reduction of GHG emissions from noncommercial passenger vehicles and light and medium-duty trucks of model year 2009 and thereafter, as required by the state of California (see ARB 2008a). The regulated vehicle classes are shown here for comparison purposes only; a reduction in GHG emissions is not applied in this calculation scenario.
12. ARB adopted a regulation to reduce greenhouse gas emissions by improving the fuel efficiency of heavy-duty trucks (see ARB 2008b). The regulated vehicle classes are shown here for comparison purposes only; a reduction in GHG emissions is not applied in this calculation scenario.

Sources:

Gibson Transportation, Raju Associates, 2010. Transportation Study for the Universal City Evolution Plan Environmental Impact Report.
SCAQMD, 2007. URBEMIS2007 for Windows. November. http //www.urbemis.com/
CARB, 2007. EMFAC2007. http //www.arb.ca.gov/msei/onroad/latest_version.htm
California Air Resources Board (ARB). 2008a. Comparison of Greenhouse Gas Reductions For the United States and Canada Under U.S. CAFE Standards and California Air Resources Board Greenhouse Gas Regulations. Available at http //www.arb.ca.gov/cc/ccms/reports/pavleycafe_reportfeb25_08.pdf.
California Air Resources Board (ARB). 2008b. Public hearing to consider adoption of the regulation to reduce greenhouse gas emissions from heavy-duty vehicles. October. Available at http //www.arb.ca.gov/regact/2008/ghghdv08/ghgisor.pdf.

Table H.7.-4C. CO_2 Emissions (with TDM, Pavley, and Heavy-Duty Standards) in Project Year 2020 (Full Site - growth only, reduced trip length)
NBC Universal
Evolution Plan

Vehicle Class	Land Use		Total Number of Trips completed by All (Group A + Group B) Vehicles		Trip Characteristics						Number of Trips and VMT completed by Group X of Vehicles		Emission Factors		Annual Emissions			
	per Project Transprotation Study	Categories for URBEMIS[1]	Total Daily Trips[2]	Total Annual Trips[3]	Trip Type	% Trip Type[4]	Trip Purpose[5]	% Trip Purpose[5]	Trip Length [by Trip Purpose][5] (miles)	% Trip Reduction due to TDM[6]	Annual Trips	Annual VMT[7] (miles)	Startup[8] (g/start)	Running[9] (g/mile)	Annual Startup CO_2 Emissions (tonnes)	Annual Running CO_2 Emissions (tonnes)	Total Annual CO_2 Emissions (tonnes)	Total Annual CO_2e Emissions[10] (tonnes)
Group A Passenger Vehicles (Vehicles <= 8,500 lbs LDA, LDT1, LDT2, MDV) Pavley Standards Applicable[11]	Mixed-Use Residential Area	Single-Family Housing	17 796	6 495 401	Primary	85.0%	Home-Based Work	32.9%	10.3	21.1%	1,686,083	15,219,005	189.0	310.4	319	4,723	5,042	5,307
					Diverted	10.0%	Home-Based Shop	18.0%	7.0	21.1%	922,477	5,654,783			174	1,755	1,929	2,031
					Passby	5.0%	Home-Based Other	49.1%	9.5	21.1%	2 516 312	20 929 425			476	6 495	6 971	7 338
		Strip Mall	2 669	974 324	Primary	45.0%	Commercial-Based Commute	0.0%	13.3	0.0%	0	0			0	0	0	0
					Diverted	40.0%	Commercial-Based Non-Work	0.0%	7.4	0.0%	0	0			0	0	0	0
					Passby	15.0%	Commercial-Based Customer	0.0%	8.9	0.0%	0	0			0	0	0	0
	Entertainment Area	Entertainment Center	28 259	10 314 535	Primary	90.0%	Commercial-Based Commute	0.0%	13.3	7.7%	0	0			0	0	0	0
					Diverted	10.0%	Commercial-Based Non-Work	0.0%	7.4	7.7%	0	0			0	0	0	0
					Passby	0.0%	Commercial-Based Customer	0.0%	8.9	4.0%	0	0			0	0	0	0
		Hotel	4 460	1 627 900	Primary	60.0%	Commercial-Based Commute	0.0%	13.3	7.7%	0	0			0	0	0	0
					Diverted	35.0%	Commercial-Based Non-Work	0.0%	7.4	7.7%	0	0			0	0	0	0
					Passby	5.0%	Commercial-Based Customer	0.0%	8.9	4.0%	0	0			0	0	0	0
	Business Area	General Office Building	16 630	6 069 950	Primary	75.0%	Commercial-Based Commute	0.0%	13.3	25.1%	0	0			0	0	0	0
					Diverted	20.0%	Commercial-Based Non-Work	0.0%	7.4	25.1%	0	0			0	0	0	0
					Passby	5.0%	Commercial-Based Customer	0.0%	8.9	25.1%	0	0			0	0	0	0
	Studio Area	Studio/Production Support	11 520	4 204 800	Primary	75.0%	Commercial-Based Commute	0.0%	13.3	12.2%	0	0			0	0	0	0
					Diverted	20.0%	Commercial-Based Non-Work	0.0%	7.4	12.2%	0	0			0	0	0	0
					Passby	5.0%	Commercial-Based Customer	0.0%	8.9	12.2%	0	0			0	0	0	0
	All Land Uses		*81,334*	*29,686,910*	***	***	**Subtotal for Group A Vehicles**				**5,124,872**	**41,803,213**	**189.03**	**310.35**	**969**	**12,974**	**13,942**	**14,676**
Group B Commercial Vehicles (Vehicles > 8,500 lbs LHDT1, LHDT2, MHDT, HHDT) Pavley Standards Not Applicable; Heavy-Duty Standards Applicable for HHDT and some MHDT[12]	Mixed-Use Residential Area	Single-Family Housing	17 796	6 495 401	Primary	85.0%	Home-Based Work	0.0%	10.3	21.1%	0	0	212.3	1132.9	0	0	0	0
					Diverted	10.0%	Home-Based Shop	0.0%	7.0	21.1%	0	0			0	0	0	0
					Passby	5.0%	Home-Based Other	0.0%	9.5	21.1%	0	0			0	0	0	0
		Strip Mall	2 669	974 324	Primary	45.0%	Commercial-Based Commute	0.0%	13.3	0.0%	0	0			0	0	0	0
					Diverted	40.0%	Commercial-Based Non-Work	1.0%	7.4	0.0%	9,743	39,801			2	45	47	50
					Passby	15.0%	Commercial-Based Customer	0.0%	8.9	0.0%	0	0			0	0	0	0
	Entertainment Area	Entertainment Center	28 259	10 314 535	Primary	90.0%	Commercial-Based Commute	0.0%	13.3	7.7%	0	0			0	0	0	0
					Diverted	10.0%	Commercial-Based Non-Work	1.0%	7.4	7.7%	95,203	651,666			20	738	758	798
					Passby	0.0%	Commercial-Based Customer	0.0%	8.9	4.0%	0	0			0	0	0	0
		Hotel	4 460	1 627 900	Primary	60.0%	Commercial-Based Commute	0.0%	13.3	7.7%	0	0			0	0	0	0
					Diverted	35.0%	Commercial-Based Non-Work	2.5%	7.4	7.7%	37,564	191,294			8	217	225	237
					Passby	5.0%	Commercial-Based Customer	0.0%	8.9	4.0%	0	0			0	0	0	0
	Business Area	General Office Building	16 630	6 069 950	Primary	75.0%	Commercial-Based Commute	0.0%	13.3	25.1%	0	0			0	0	0	0
					Diverted	20.0%	Commercial-Based Non-Work	17.5%	7.4	25.1%	795,619	4,714,041			169	5,341	5,509	5,799
					Passby	5.0%	Commercial-Based Customer	0.0%	8.9	25.1%	0	0			0	0	0	0
	Studio Area	Studio/Production Support	11 520	4 204 800	Primary	75.0%	Commercial-Based Commute	0.0%	13.3	12.2%	0	0			0	0	0	0
					Diverted	20.0%	Commercial-Based Non-Work	17.5%	7.4	12.2%	646,068	3,827,950			137	4,337	4,474	4,709
					Passby	5.0%	Commercial-Based Customer	0.0%	8.9	12.2%	0	0			0	0	0	0
	All Land Uses		*81,334*	*29,686,910*	***	***	**Subtotal for Group B Vehicles**				**1,584,196**	**9,424,751**	**212.3**	**1132.9**	**336**	**10,677**	**11,014**	**11,593**
Total for All Vehicles			**81,334**	**29,686,910**	***	***	**Total for All Vehicles**				**6,709,068**	**51,227,964**	***	***	**1,305**	**23,651**	**24,956**	**26,270**

Abbreviations:
CO_2 - carbon dioxide
CO_2e - carbon dioxide equivalent
TDM - Transportation Demand Management Program
URBEMIS - URBan EMISsions modeling software
VMT - vehicle miles traveled
Vehicle Classes (from EMFAC User Guide)
lbs - pounds

Abbreviations cont'd:
Vehicle Classes (from EMFAC User Guide)
LDA - Light Duty Auto (Passenger Cars)
LDT1, LDT2 - Light-Duty Trucks (0-3,750 lbs; 3,751-5,750 lbs)
MDV - Medium Duty Trucks (5,751-8,500 lbs)
LHDT1, LHDT2 - Light-Heavy-Duty Trucks (8,501-10,000 lbs; 10,001-14,000 lbs)
MHDT - Medium-Heavy-Duty Trucks (14,001-33,000 lbs)
HHDT - Heavy-Heavy-Duty Trucks (33,001-60,000 lbs)

Notes:
1. URBEMIS does not contain default settings for "Entertainment Center" and "Studio/Production Support"; "Entertainment Center" was based on URBEMIS default "general land use" settings, and "Studio/Production Support" was based on General Office Building settings.
2. Daily number of trips are based on information provided in the NBC Universal Evolution Plan. Trips are assumed to be one-way.
3. Annual number of trips = Daily number of trips*365
4. % trip type data are URBEMIS defaults for each land use type.
5. Trip purpose categories and the associated trip lengths are URBEMIS defaults for each land use type, with the exception of home-based-work trips, for which a project-specific value was supplied. % trip purpose data are based on URBEMIS defaults and the following assumptions made by ENVIRON a) All home-based trips are performed by Group A vehicles only; b) All commercial-based non-work trips are performed by Group B vehicles only.
6. % trip reduction data are based on information provided in Table 18 of the NBC Universal Evolution Plan Transportation Study.
7. VMT was adjusted to account for diverted and pass-by trips using the following default information from URBEMIS diverted trip length is assumed to be 25% of primary trip length. Pass-by trip length is assumed to be 0.1 miles.
8. Startup emission factors are taken from EMFAC. ENVIRON applied the conservative assumption of 720 minutes (12 hours) between startups. For Group B vehicles, the EMFAC startup emission factors are weighted by truck type based on an estimate of truck activity at the site, consistent with the Air Quality analysis.
9. Running emission factors are taken from EMFAC at 30 mph (URBEMIS default). For Group B vehicles, the EMFAC running emission factors are weighted by truck type based on an estimate of truck activity at the site, consistent with the Air Quality analysis.
10. $CO_2e=CO_2/0.95$ The United States Environmental Protection Agency (USEPA) recommends assuming that CH , N_2O, and HFCs are 5% of emissions on a CO_2e basis.
11. A 20.25% reduction in starting and running emissions was taken to account for the AB 1493 "Pavley Standards" for noncommercial passenger vehicles and light and medium-duty trucks. The percent reduction was based on data for year 2020 in Table 11 of the 2008a ARB report. This reduction was applied to both the startup and running emission factors.
12. An 8.77% reduction in the running emissions of all HHDT and some MHDT was taken to account for the ARB Heavy Duty Vehicle Greenhouse Gas Measure. The percent reduction was based on data for year 2020 in Table XI-2 in the 2008b ARB report. This 8.8% reduction was applied to 37% of MHDT assuming an even distribution of vehicles throughout the MHDT weight class. This reduction was applied to the running emission factor only.

Sources:

Gibson Transportation, Raju Associates, 2010. Transportation Study for the Universal City Evolution Plan Environmental Impact Report.
SCAQMD, 2007. URBEMIS2007 for Windows. November. http //www.urbemis.com/
CARB, 2007. EMFAC2007. http //www.arb.ca.gov/msei/onroad/latest_version.htm
California Air Resources Board (ARB). 2008a. Comparison of Greenhouse Gas Reductions For the United States and Canada Under U.S. CAFE Standards and California Air Resources Board Greenhouse Gas Regulations. Available at http //www.arb.ca.gov/cc/ccms/reports/pavleycafe_reportfeb25_08.pdf.
California Air Resources Board (ARB). 2008b. Public hearing to consider adoption of the regulation to reduce greenhouse gas emissions from heavy-duty vehicles. October. Available at http //www.arb.ca.gov/regact/2008/ghghdv08/ghgisor.pdf.

Building Energy Simulation Model

Certificate Of Compliance : Residential (Part 1 of 4) CF-1R

Project Title	**Date**
Project Address	**Building Permit #**
Documentation Author / **Telephone**	**Plan Check/Date**
EnergyPro / CA Climate Zone 09	**Field Check/Date**
Compliance Method / **Climate Zone**	

TDV (kBtu/sf-yr)	Standard Design	Facing North	Margin	Facing East	Margin	Facing South	Margin	Facing West	Margin
Space Heating	4.65	1.87	2.78	1.81	2.83	1.43	3.21	1.39	3.26
Space Cooling	16.52	10.32	6.20	10.79	5.73	11.24	5.28	12.50	4.02
Fans	2.88	2.20	0.68	2.29	0.59	2.36	0.52	2.62	0.26
Domestic Hot Water	14.10	9.06	5.04	9.06	5.04	9.06	5.04	9.06	5.04
Pumps	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Totals	38.15	23.45	14.70	23.96	14.20	24.09	14.06	25.57	12.58
Percent better than Standard:			38.5%		37.2%		36.9%		33.0%

BUILDING COMPLIES - HERS VERIFICATION REQUIRED

Building Type: [X] Single Family [ ] Addition [ ] Multi Family [ ] Existing + Add/Alt

Building Front Orientation: All Four Orientations

Fuel Type: Natural Gas

Fenestration:

Area: 216 ft^2 **Avg. U:** 0.32

Ratio: 13.0% **Avg. SHGC:** 0.32

Total Conditioned Floor Area:	1,665 ft^2
Existing Floor Area:	n/a ft^2
Raised Floor Area:	0 ft^2
Slab on Grade Area:	0 ft^2
Average Ceiling Height:	9.0 ft
Number of Dwelling Units:	1.00
Number of Stories:	1

BUILDING ZONE INFORMATION

Zone Name	Floor Area	Volume	# of Units	Zone Type	Thermostat Type	Vent Hgt.	Vent Area
HVAC System	1,665	14,985	1.00	Conditioned	Setback	2	n/a

OPAQUE SURFACES

Type	Frame	Area	U-Fac.	Insulation Cav.	Insulation Cont.	Act. Azm.	Act. Tilt	Gains Y	Gains N		JA IV Reference	Location / Comments
Wall	Wood	261	0.065	R-21	R-1.0	0	90	X		New	09-A6	1st Floor
Wall	Wood	405	0.065	R-21	R-1.0	90	90	X		New	09-A6	1st Floor
Wall	Wood	261	0.065	R-21	R-1.0	180	90	X		New	09-A6	1st Floor
Wall	Wood	333	0.065	R-21	R-1.0	270	90	X		New	09-A6	1st Floor
Roof	Wood	1,665	0.032	R-30	R-0.0	0	0	X		New	01-A17	1st Floor

Certificate Of Compliance : Residential (Part 2 of 4) CF-1R

Apartment
Project Title

Date

FENESTRATION SURFACES

#	Type			Area	U-Factor[1]		SHGC[2]		True Azm.	Tilt	Cond. Stat.	Glazing Type	Location/ Comments
1	Window	Front	(N)	72.0	0.318	NFRC	0.32	NFRC	0	90	New	Great	1st Floor
2	Window	Rear	(S)	72.0	0.318	NFRC	0.32	NFRC	180	90	New	Great	1st Floor
3	Window	Right	(W)	72.0	0.318	NFRC	0.32	NFRC	270	90	New	Great	1st Floor

1. Indicate source either from NFRC or Table 116A. 2. Indicate source either from NFRC or Table 116B.

INTERIOR AND EXTERIOR SHADING

#	Exterior Shade Type	SHGC	Window Hgt.	Window Wd.	Overhang Len.	Overhang Hgt.	Overhang LExt.	Overhang RExt.	Left Fin Dist.	Left Fin Len.	Left Fin Hgt.	Right Fin Dist.	Right Fin Len.	Right Fin Hgt.
1	Bug Screen	0.76	6.0	4.0	0.0	0.0	2.0	2.0						
2	Bug Screen	0.76	6.0	40.0	0.0	0.0	2.0	2.0						
3	Bug Screen	0.76												

THERMAL MASS FOR HIGH MASS DESIGN

Type	Area (sf)	Thick. (in.)	Heat Cap.	Cond.	Inside R-Val.	JA IV Reference	Condition Status	Location/ Comments

PERIMETER LOSSES

Type	Length	R-Val.	Insulation Location	JA IV Reference	Condition Status	Location/ Comments

Certificate Of Compliance : Residential (Part 3 of 4) CF-1R

Apartment
Project Title **Date**

HVAC SYSTEMS

Location	Heating Type	Minimum Eff	Cooling Type	Minimum Eff	Condition Status	Thermostat Type
HVAC System	Central Furnace	80% AFUE	Split Air Conditioner	15.0 SEER	New	Setback

HVAC DISTRIBUTION

Location	Heating	Cooling	Duct Location	Duct R-Value	Condition Status	Ducts Tested?
HVAC System	Ducted	Ducted	Attic	4.2	New	Yes

Hydronic Piping System Name	Pipe Length	Pipe Diameter	Insul. Thick.

WATER HEATING SYSTEMS

System Name	Water Heater Type	Distribution	# in Syst.	Rated Input (Btu/hr)	Tank Cap. (gal)	Condition Status	Energy Factor or RE	Standby Loss (%)	Tank Insul. R-Value Ext.
Takagi T-K2	Instant Gas	No Pipe Insulation	1	185,000	0	New	0.84	0	n/a

Multi-Family Central Water Heating Details

Control	Hot Water Pump #	Hot Water Pump HP	Hot Water Pump Type	Hot Water Piping Length (ft) In Plenum	Hot Water Piping Length (ft) Outside	Hot Water Piping Length (ft) Buried	Add 1/2" Insulation

REMARKS

COMPLIANCE STATEMENT

This certificate of compliance lists the building features and specifications needed to comply with Title 24, Parts 1 and 6 of the California Code of Regulations, and the administrative regulations to implement them. This certificate has been signed by the individual with overall design responsibility. The undersigned recognizes that compliance using duct design, duct sealing, verification of refrigerant charge and TXVs, insulation installation quality, and building envelope sealing require installer testing and certification and field verification by an approved HERS rater.

Designer or Owner (per Business & Professions Code)
Name:
Title/Firm:
Address:
,
Telephone: Lic. #:

(signature) (date)

Documentation Author
Name:
Title/Firm:
Address:
Telephone:

(signature) (date)

Enforcement Agency
Name:
Title/Firm:
Address:
Telephone:

(signature) (date)

Run Initiation Time: 08/12/09 15:13:56 **Run Code: 1250115236**

Certificate Of Compliance : Residential (Part 4 of 4) CF-1R

Apartment
Project Title

Date

Special Features and Modeling Assumptions

The local enforcement agency should pay special attention to the items specified in this checklist. These items require special written justification and documentation, and special verification to be used with the performance approach. The local enforcement agency determines the adequacy of the justification, and may reject a building or design that otherwise complies based on the adequacy of the special justification and documentation submitted.

	Plan	Field
Compliance using the Four Cardinal Orientation approach has been used. Project can be built in any Orientation.		
The Roof "R-30 Roof Attic" includes credit for a Radiant Barrier installed per Section 3.3.3 of the Residential Manual.		

HERS Required Verification

Items in this section require field testing and/or verification by a certified home energy rater under the supervision of a HERS provider using approved testing and/or verification methods.

	Plan	Field
The HVAC System "HVAC System" incorporates HERS verified Duct Leakage. Target leakage is calculated and documented on the CF-4R.		
The Cooling System "Carrier 38ETG02430" includes credit for a 13.0 EER Condenser. A certified HERS rater must field verify the installation of the correct Condenser.		

PERFORMANCE CERTIFICATE OF COMPLIANCE Part 1 of 3 PERF-1

PROJECT NAME		DATE
High Rise Res		
PROJECT ADDRESS		Building Permit #
PRINCIPAL DESIGNER - ENVELOPE	TELEPHONE	
DOCUMENTATION AUTHOR	TELEPHONE	Checked by/Date
		Enforcement Agency Use

GENERAL INFORMATION

DATE OF PLANS	BUILDING CONDITIONED FLOOR AREA	CLIMATE ZONE
	191,893 Sq.Ft.	9

BUILDING TYPE	[X]	NONRESIDENTIAL	[X]	HIGH RISE RESIDENTIAL	[ ]	HOTEL/MOTEL GUEST ROOM	
PHASE OF CONSTRUCTION	[X]	NEW CONSTRUCTION	[ ]	ADDITION	[ ]	EXISTING + ADDITION/ALTERATION	

STATEMENT OF COMPLIANCE

This Certificate of Compliance lists the building features and performance specifications needed to comply with Title 24, Parts 1 and 6 of the California Code of Regulations. This certificate applies only to a Building using the performance compliance approach.

The documentation preparer hereby certifies that the documentation is accurate and complete.

DOCUMENTATION AUTHOR	SIGNATURE	DATE

The Principal Designer hereby certifys that the proposed building design represented in this set of construction documents is consistent with the other compliance forms and worksheets, with the specifications, and with any other calculations submitted with this permit application. The proposed building as designed meets the energy efficiency requirements contained in sections 110, 116, through 118, and 140, 142, 143 or 149 of Title 24, Part 6.

ENV.	LTG.	MECH.	
[ ]	[ ]	[ ]	1. I hereby affirm that I am eligible under the provisions of Division 3 of the Business and Professions Code to sign this document as the person responsible for its preparation; and that I am licensed in the State of California as a civil engineer, mechanical engineer, electrical engineer, or I am a licensed architect.
[ ]	[ ]	[ ]	2. I affirm that I am eligible under the provisions of Division 3 of the Business and Professions Code Section 5537.2 or 6737.3 to sign this document as the person responsible for its preparation; and that I am a licensed contractor performing this work.
[ ]	[ ]	[ ]	3. I affirm that I am eligible under Division 3 of the Business and Professions Code to sign this document because it pertains to a structure or type of work described as exempt pursuant to Business and Professions Code Sections 5537, 5538, and 6737.1. (These sections of the Business and Professions Code are printed in full in the Nonresidential Manual.)

ENVELOPE COMPLIANCE

Indicate location on plans of Note Block for Mandatory Measures	
Required Forms	

PRINCIPAL ENVELOPE DESIGNER - NAME	SIGNATURE	LIC. NO.	DATE

LIGHTING COMPLIANCE

Indicate location on plans of Note Block for Mandatory Measures	
Required Forms	

PRINCIPAL LIGHTING DESIGNER - NAME	SIGNATURE	LIC. NO.	DATE

MECHANICAL COMPLIANCE

Indicate location on plans of Note Block for Mandatory Measures	
Required Forms	

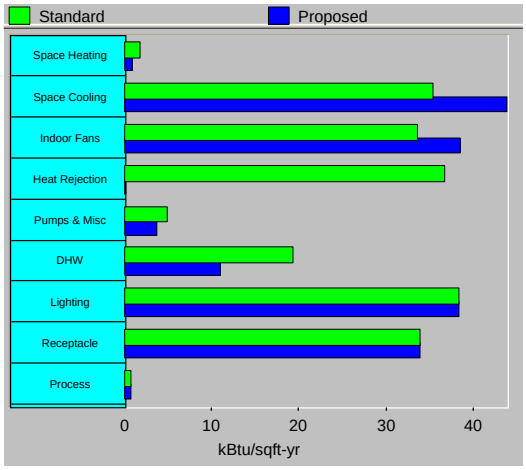
PRINCIPAL MECHANICAL DESIGNER - NAME	SIGNATURE	LIC. NO.	DATE

PERFORMANCE CERTIFICATE OF COMPLIANCE Part 2 of 3 PERF-1

PROJECT NAME	DATE
High Rise Res	

ANNUAL TDV ENERGY USE SUMMARY (kBtu/sqft-yr)

ENERGY COMPONENT	Standard Design	Proposed Design	Compliance Margin
Space Heating	1.64	0.76	0.87
Space Cooling	35.28	43.75	-8.46
Indoor Fans	33.50	38.35	-4.85
Heat Rejection	36.59	0.00	36.59
Pumps & Misc.	4.87	3.65	1.22
Domestic Hot Water	19.28	10.87	8.41
Lighting	38.20	38.20	0.00
Receptacle	33.80	33.80	0.00
Process	0.61	0.61	0.00
TOTALS:	203.78	170.00	33.78



Percent better than Standard: 16.6% (16.6% excluding process)

BUILDING COMPLIES

GENERAL INFORMATION

Building Orientation	(N) 0 deg	Conditioned Floor Area	191,893	sqft.
Number of Stories	28	Unconditioned Floor Area	2,251	sqft.
Number of Systems	199	Conditioned Footprint Area	13,033	sqft.
Number of Zones	107	Fuel Type	Natural Gas	

	Orientation	Gross Area		Glazing Area		Glazing Ratio
Front Elevation	(N)	15,275	sqft.	10,428	sqft.	68.3%
Left Elevation	(E)	29,818	sqft.	20,868	sqft.	70.0%
Rear Elevation	(S)	15,648	sqft.	10,624	sqft.	67.9%
Right Elevation	(W)	36,474	sqft.	25,360	sqft.	69.5%
Total		97,216	sqft.	67,280	sqft.	69.2%
Roof		12,477	sqft.	0	sqft.	0.0%

	Standard		Proposed	
Lighting Power Density	1.513	W/sqft.	1.513	W/sqft.
Prescriptive Env. Heat Loss	34,295	Btu/h	28,656	Btu/h
Prescriptive Env. Heat Gain	3,113,254	Btu/h-F	3,415,535	Btu/h-F

Remarks:

Run Initiation Time: 08/12/09 14:19:16 Run Code: 1250111956

PERFORMANCE CERTIFICATE OF COMPLIANCE Part 3 of 3 PERF-1

PROJECT NAME	DATE
High Rise Res	

ZONE INFORMATION

System Name	Zone Name	Occupancy Type	Floor Area (sqft.)	Inst. LPD (W/sf)[1]	Ctrl. Credits (W/sf)[2]	Allowed LPD Area (W/sf)[3]	Allowed LPD Tailored (W/sf)[4]	Proc. Loads (W/sf)
Tower 1 - 19th Flrs Unit P.1	Unit X	High-Rise Residential Living	2,215	*0.500				
Tower 1 - 19th Flr Unit V	Unit R1-S1	High-Rise Residential Living	1,700	*0.500				
Tower 1 - 19th Flrs Unit U	Unit Q	High-Rise Residential Living	2,380	*0.500				
Tower 1 - 19th Flrs Unit S	Unit S	High-Rise Residential Living	2,320	*0.500				
Tower 1 - 19th Flrs Unit R	Unit V-W	High-Rise Residential Living	1,750	*0.500				
Tower 1 - 19th Flrs Unit Q	Unit Q	High-Rise Residential Living	2,112	*0.500				
Tower 1 - 5-18th Floors Unit F	Unit F	High-Rise Residential Living	16,058	*0.500				
Tower 1 - 5-18th Flrs Units B-E	Units B-E	High-Rise Residential Living	39,816	*0.500				
Tower 1 - 5-18th Floors Unit A	Unit A	High-Rise Residential Living	16,534	*0.500				
Tower 1 - 5-18th Floors Unit K	Unit K	High-Rise Residential Living	17,934	*0.500				
Tower 1 - 5-18th Flrs Units H-J	Units H-J	High-Rise Residential Living	45,640	*0.500				
Tower 1 - 5-18th Floors Unit G	Unit G	High-Rise Residential Living	16,660	*0.500				
Tower 1 - 4th Floor Unit F	Units F	High-Rise Residential Living	1,147	*0.500				
Tower 1 - 4th Floor Units B-D	Units B-D	High-Rise Residential Living	2,773	*0.500				
Tower 1 - 4th Floor Unit A	Unit A	High-Rise Residential Living	1,181	*0.500				
Tower 1 - 4th Floor Unit K	Unit K	High-Rise Residential Living	1,281	*0.500				
Tower 1 - 4th Floor Units H-J	Unit H-J	High-Rise Residential Living	3,224	*0.500				
Tower 1 - 4th Floor Unit G	Unit G	High-Rise Residential Living	1,190	*0.500				
Tower 1 - 3rd Floor Spa	3rd Floor Spa	Exercise, Gymnasium	1,917	*1.000				1.000
Tower 1 - 3rd Floor Unit 7	3rd Floor Unit 7	High-Rise Residential Living	745	*0.500				

Notes: 1. See LTG-2-C (items marked with asterisk, see LTG-2 -C by others) 2. See LTG-4-C 3. See LTG-5-C (by others) 4. See LTG-6-C

Items above require special documentation

EXCEPTIONAL CONDITIONS COMPLIANCE CHECKLIST

The local enforcement agency should pay special attention to the items specified in this checklist. These items require special written justification and documentation, and special verification to be used with the performance approach. The local enforcement agency determines the adequacy of the justification, and may reject a building or design that otherwise complies based on the adequacy of the special justification and documentation submitted.

Building has 210 Dwelling Units. This has been used in the Highrise Residential DHW calcs.
The Hot Water Pump includes a Variable Speed Drive.
The Cooling Tower "Baltimore Aircoil FXT-LQ661" includes a Variable Speed Drive on the fan motor.
The HVAC System "Tower 1 - 19th Flrs Unit P.1" incorporates HERS verified Duct Leakage. Target leakage is calculated and documented on the MECH-5-A.
The HVAC System "Tower 1 - 19th Flr Unit V" incorporates HERS verified Duct Leakage. Target leakage is calculated and documented on the MECH-5-A.
The HVAC System "Tower 1 - 19th Flrs Unit U" incorporates HERS verified Duct Leakage. Target leakage is calculated and documented on the MECH-5-A.
The HVAC System "Tower 1 - 19th Flrs Unit S" incorporates HERS verified Duct Leakage. Target leakage is calculated and documented on the MECH-5-A.
The HVAC System "Tower 1 - 19th Flrs Unit R" incorporates HERS verified Duct Leakage. Target leakage is calculated and documented on the MECH-5-A.
The HVAC System "Tower 1 - 19th Flrs Unit Q" incorporates HERS verified Duct Leakage. Target leakage is calculated and documented on the MECH-5-A.
The HVAC System "Tower 1 - 5-18th Floors Unit F" incorporates HERS verified Duct Leakage. Target leakage is calculated and documented on the MECH-5-A.
The HVAC System "Tower 1 - 5-18th Flrs Units B-E" incorporates HERS verified Duct Leakage. Target leakage is calculated and documented on the MECH-5-A.
The HVAC System "Tower 1 - 5-18th Floors Unit A" incorporates HERS verified Duct Leakage. Target leakage is calculated and documented on the MECH-5-A.
The HVAC System "Tower 1 - 5-18th Floors Unit K" incorporates HERS verified Duct Leakage. Target leakage is calculated and documented on the MECH-5-A.

The exceptional features listed in this performance approach application have specifically been reviewed. Adequate written justification and documentation for their use have been provided by the applicant.

Authorized Signature or Stamp _____

Run Initiation Time: 08/12/09 14:19:16 Run Code: 1250111956

PERFORMANCE CERTIFICATE OF COMPLIANCE Part 3 of 3 PERF-1

PROJECT NAME	DATE
High Rise Res	

ZONE INFORMATION

System Name	Zone Name	Occupancy Type	Floor Area (sqft.)	Inst. LPD (W/sf)[1]	Ctrl. Credits (W/sf)[2]	Allowed LPD Area (W/sf)[3]	Allowed LPD Tailored (W/sf)[4]	Proc. Loads (W/sf)
Tower 1 - 3rd Floor Unit 6	3rd Floor Unit 6	High-Rise Residential Living	745	*0.500				
Tower 1 - 3rd Floor Unit 5	3rd Floor Unit 5	High-Rise Residential Living	830	*0.500				
Tower 1 - 3rd Floor Lobby	3rd Floor Lobby	Lobby, Main Entry	2,250	*1.500				
Tower 1 - 3rd Floor Unit 4	Unit 4	High-Rise Residential Living	730	*0.500				
Tower 1 - 3rd Floor Units 2-3	Units 2-3	High-Rise Residential Living	1,415	*0.500				
Tower 1 - 3rd Floor Unit 1	Unit 1	High-Rise Residential Living	800	*0.500				
Tower 1 - Retail	Retail	Retail Sales, Wholesale	5,500	*1.700				
Tower 1 - Lobby and Other	Lobby	Lobby, Main Entry	1,046	*1.500				
	Ldng Berth, Rcvng, Hall	Comp Bldg All Other	2,251	*0.600				

Notes: 1. See LTG-2-C (items marked with asterisk, see LTG-2 -C by others) 2. See LTG-4-C 3. See LTG-5-C (by others) 4. See LTG-6-C

Items above require special documentation

EXCEPTIONAL CONDITIONS COMPLIANCE CHECKLIST

The local enforcement agency should pay special attention to the items specified in this checklist. These items require special written justification and documentation, and special verification to be used with the performance approach. The local enforcement agency determines the adequacy of the justification, and may reject a building or design that otherwise complies based on the adequacy of the special justification and documentation submitted.

The HVAC System "Tower 1 - 5-18th Flrs Units H-J" incorporates HERS verified Duct Leakage. Target leakage is calculated and documented on the MECH-5-A.
The HVAC System "Tower 1 - 5-18th Floors Unit G" incorporates HERS verified Duct Leakage. Target leakage is calculated and documented on the MECH-5-A.
The HVAC System "Tower 1 - 4th Floor Unit F" incorporates HERS verified Duct Leakage. Target leakage is calculated and documented on the MECH-5-A.
The HVAC System "Tower 1 - 4th Floor Units B-D" incorporates HERS verified Duct Leakage. Target leakage is calculated and documented on the MECH-5-A.
The HVAC System "Tower 1 - 4th Floor Unit A" incorporates HERS verified Duct Leakage. Target leakage is calculated and documented on the MECH-5-A.
The HVAC System "Tower 1 - 4th Floor Unit K" incorporates HERS verified Duct Leakage. Target leakage is calculated and documented on the MECH-5-A.
The HVAC System "Tower 1 - 4th Floor Units H-J" incorporates HERS verified Duct Leakage. Target leakage is calculated and documented on the MECH-5-A.
The HVAC System "Tower 1 - 4th Floor Unit G" incorporates HERS verified Duct Leakage. Target leakage is calculated and documented on the MECH-5-A.
The HVAC System "Tower 1 - 3rd Floor Spa" incorporates HERS verified Duct Leakage. Target leakage is calculated and documented on the MECH-5-A.
The HVAC System "Tower 1 - 3rd Floor Unit 7" incorporates HERS verified Duct Leakage. Target leakage is calculated and documented on the MECH-5-A.
The HVAC System "Tower 1 - 3rd Floor Unit 6" incorporates HERS verified Duct Leakage. Target leakage is calculated and documented on the MECH-5-A.
The HVAC System "Tower 1 - 3rd Floor Unit 5" incorporates HERS verified Duct Leakage. Target leakage is calculated and documented on the MECH-5-A.
The HVAC System "Tower 1 - 3rd Floor Lobby" incorporates HERS verified Duct Leakage. Target leakage is calculated and documented on the MECH-5-A.

The exceptional features listed in this performance approach application have specifically been reviewed. Adequate written justification and documentation for their use have been provided by the applicant.

Authorized Signature or Stamp _____

PERFORMANCE CERTIFICATE OF COMPLIANCE Part 3 of 3 PERF-1

PROJECT NAME	DATE
High Rise Res	

ZONE INFORMATION

System Name	Zone Name	Occupancy Type	Floor Area (sqft.)	Inst. LPD (W/sf)[1]	Ctrl. Credits (W/sf)[2]	Allowed LPD Area (W/sf)[3]	Allowed LPD Tailored (W/sf)[4]	Proc. Loads (W/sf)

Notes: 1. See LTG-2-C (items marked with asterisk, see LTG-2 -C by others) 2. See LTG-4-C 3. See LTG-5-C (by others) 4. See LTG-6-C

Items above require special documentation

EXCEPTIONAL CONDITIONS COMPLIANCE CHECKLIST

The local enforcement agency should pay special attention to the items specified in this checklist. These items require special written justification and documentation, and special verification to be used with the performance approach. The local enforcement agency determines the adequacy of the justification, and may reject a building or design that otherwise complies based on the adequacy of the special justification and documentation submitted.

The HVAC System "Tower 1 - 3rd Floor Unit 4" incorporates HERS verified Duct Leakage. Target leakage is calculated and documented on the MECH-5-A.
The HVAC System "Tower 1 - 3rd Floor Units 2-3" incorporates HERS verified Duct Leakage. Target leakage is calculated and documented on the MECH-5-A.
The HVAC System "Tower 1 - 3rd Floor Unit 1" incorporates HERS verified Duct Leakage. Target leakage is calculated and documented on the MECH-5-A.
The HVAC System "Tower 1 - Retail" incorporates HERS verified Duct Leakage. Target leakage is calculated and documented on the MECH-5-A.
The HVAC System "Tower 1 - Lobby and Other" incorporates HERS verified Duct Leakage. Target leakage is calculated and documented on the MECH-5-A.

The exceptional features listed in this performance approach application have specifically been reviewed. Adequate written justification and documentation for their use have been provided by the applicant.

Authorized Signature or Stamp _____

CERTIFICATE OF COMPLIANCE ENV-1-C

PROJECT NAME High Rise Res **DATE**

OPAQUE SURFACES

#	Surface Type	Area	U-Fac.	Insulation Cav.	Insulation Cont.	Act. Azm.	Tilt	Cond.* Status	Joint Appendix IV Reference	Location / Comments
1	Roof	2,215	0.051	R-19	R-0.0	0	0	New	02-A5	Unit X
2	Wall	86	0.224	R-11	R-0.0	45	90	New	11-A2	Unit X
3	Wall	110	0.224	R-11	R-0.0	135	90	New	11-A2	Unit X
4	Roof	1,700	0.051	R-19	R-0.0	0	0	New	02-A5	Unit R1-S1
5	Wall	110	0.224	R-11	R-0.0	135	90	New	11-A2	Unit R1-S1
6	Roof	2,380	0.051	R-19	R-0.0	0	0	New	02-A5	Unit Q
7	Wall	197	0.224	R-11	R-0.0	135	90	New	11-A2	Unit Q
8	Wall	100	0.224	R-11	R-0.0	225	90	New	11-A2	Unit Q
9	Wall	158	0.224	R-11	R-0.0	315	90	New	11-A2	Unit Q
10	Roof	2,320	0.051	R-19	R-0.0	0	0	New	02-A5	Unit S
11	Wall	80	0.224	R-11	R-0.0	135	90	New	11-A2	Unit S
12	Wall	30	0.224	R-11	R-0.0	225	90	New	11-A2	Unit S
13	Wall	128	0.224	R-11	R-0.0	315	90	New	11-A2	Unit S
14	Roof	1,750	0.051	R-19	R-0.0	0	0	New	02-A5	Unit V-W
15	Wall	100	0.224	R-11	R-0.0	315	90	New	11-A2	Unit V-W
16	Roof	2,112	0.051	R-19	R-0.0	0	0	New	02-A5	Unit Q
17	Wall	66	0.224	R-11	R-0.0	45	90	New	11-A2	Unit Q
18	Wall	96	0.224	R-11	R-0.0	315	90	New	11-A2	Unit Q
19	Wall	1,659	0.224	R-11	R-0.0	45	90	New	11-A2	Unit F
20	Wall	1,386	0.224	R-11	R-0.0	135	90	New	11-A2	Unit F

* N, E, A, R (New, Existing, Altered, Removed)

FENESTRATION SURFACES

☐ More than or equal to 10,000 sq.ft. of site-built fenestration area must include a label certificate either issued by NFRC or provide a CEC Default Label Certificate using the default U-factors from Standards Table 116-A and B. Certificate shall be filed in the contractor's project office during construction and in the building manager's office after construction

#	Type	Area	U-Fac.[1]	SHGC[2]	Act. Azm.	Cond. Stat.	Glazing Type	Location/ Comments
1	Window Front (NE)	344	0.300 NFRC	0.26 NFRC	45	New	Tinted	Unit X
2	Window Left (SE)	440	0.300 NFRC	0.26 NFRC	135	New	Tinted	Unit X
3	Window Left (SE)	440	0.300 NFRC	0.26 NFRC	135	New	Tinted	Unit R1-S1
4	Window Left (SE)	320	0.300 NFRC	0.26 NFRC	135	New	Tinted	Unit Q
5	Window Rear (SW)	240	0.300 NFRC	0.26 NFRC	225	New	Tinted	Unit Q
6	Window Rear (SW)	50	0.300 NFRC	0.26 NFRC	225	New	Tinted	Unit Q
7	Window Right (NW)	216	0.300 NFRC	0.26 NFRC	315	New	Tinted	Unit Q
8	Window Rear (SW)	240	0.300 NFRC	0.26 NFRC	225	New	Tinted	Unit S
9	Window Rear (SW)	110	0.300 NFRC	0.26 NFRC	225	New	Tinted	Unit S
10	Window Right (NW)	512	0.300 NFRC	0.26 NFRC	315	New	Tinted	Unit S
11	Window Right (NW)	400	0.300 NFRC	0.26 NFRC	315	New	Tinted	Unit V-W
12	Window Front (NE)	264	0.300 NFRC	0.26 NFRC	45	New	Tinted	Unit Q
13	Window Right (NW)	384	0.300 NFRC	0.26 NFRC	315	New	Tinted	Unit Q

(1) U-factor Type: 116-A Default Table from Standards, Table NI-1 Default Table from the ACM Manual Appendix, NFRC Labeled value.
(2) SHGC Type: 116-B Default Table from Standards, COG Center of Glass, NFRC Labeled Value

EXTERIOR SHADING

#	Exterior Shade Type	SHGC	Window Hgt. Wd.	Overhang Len. Hgt. LExt. RExt.	Left Fin Dist. Len. Hgt.	Right Fin Dist. Len. Hgt.
1	None	0.76				
2	None	0.76				
3	None	0.76				
4	None	0.76				
5	None	0.76	10.0 24.0	3.0 0.1 0.0 0.0		
6	None	0.76				
7	None	0.76				
8	None	0.76	10.0 24.0	3.0 0.1 0.0 0.0		
9	None	0.76				
10	None	0.76				
11	None	0.76				
12	None	0.76				
13	None	0.76				

MINIMUM SKYLIGHT AREA FOR LARGE ENCLOSED SPACES

☐ **The proposed building is in climate zones 2 through 15 and contains an enclosed space with floor area greater than 25,000 ft2, a ceiling height greater than 15 feet, and an LPD for general lighting of at least 0.5 W/ft2. See Section 143(c). If this box is checked, ENV-4-C must be filled out. when submitting under the Prescriptive Compliance Approach.**

Run Initiation Time: 08/12/09 14:19:16 Run Code: 1250111956

CERTIFICATE OF COMPLIANCE ENV-1-C

PROJECT NAME High Rise Res **DATE**

OPAQUE SURFACES

#	Surface Type	Area	U-Fac.	Insulation Cav.	Insulation Cont.	Act. Azm.	Tilt	Cond.* Status	Joint Appendix IV Reference	Location / Comments
21	Wall	4,074	0.224	R-11	R-0.0	135	90	New	11-A2	Units B-E
22	Wall	1,078	0.224	R-11	R-0.0	315	90	New	11-A2	Unit A
23	Wall	1,638	0.224	R-11	R-0.0	225	90	New	11-A2	Unit A
24	Wall	1,407	0.224	R-11	R-0.0	135	90	New	11-A2	Unit A
25	Wall	1,078	0.224	R-11	R-0.0	135	90	New	11-A2	Unit K
26	Wall	1,638	0.224	R-11	R-0.0	225	90	New	11-A2	Unit K
27	Wall	1,659	0.224	R-11	R-0.0	315	90	New	11-A2	Unit K
28	Wall	4,074	0.224	R-11	R-0.0	315	90	New	11-A2	Units H-J
29	Wall	1,617	0.224	R-11	R-0.0	45	90	New	11-A2	Unit G
30	Wall	1,365	0.224	R-11	R-0.0	315	90	New	11-A2	Unit G
31	Wall	118	0.224	R-11	R-0.0	45	90	New	11-A2	Units F
32	Wall	99	0.224	R-11	R-0.0	135	90	New	11-A2	Units F
33	Wall	288	0.224	R-11	R-0.0	135	90	New	11-A2	Units B-D
34	Wall	21	0.224	R-11	R-0.0	315	90	New	11-A2	Unit A
35	Wall	117	0.224	R-11	R-0.0	225	90	New	11-A2	Unit A
36	Wall	100	0.224	R-11	R-0.0	135	90	New	11-A2	Unit A
37	Wall	21	0.224	R-11	R-0.0	135	90	New	11-A2	Unit K
38	Wall	117	0.224	R-11	R-0.0	225	90	New	11-A2	Unit K
39	Wall	118	0.224	R-11	R-0.0	315	90	New	11-A2	Unit K
40	Wall	288	0.224	R-11	R-0.0	315	90	New	11-A2	Unit H-J

* N, E, A, R (New, Existing, Altered, Removed)

FENESTRATION SURFACES

☐ More than or equal to 10,000 sq.ft. of site-built fenestration area must include a label certificate either issued by NFRC or provide a CEC Default Label Certificate using the default U-factors from Standards Table 116-A and B. Certificate shall be filed in the contractor's project office during construction and in the building manager's office after construction

#	Type	Area	U-Fac.[1]	SHGC[2]	Act. Azm.	Cond. Stat.	Glazing Type	Location/ Comments
14	Window Front (NE)	4,424	0.300 NFRC	0.26 NFRC	45	New	Tinted	Unit F
15	Window Left (SE)	3,696	0.300 NFRC	0.26 NFRC	135	New	Tinted	Unit F
16	Window Left (SE)	10,864	0.300 NFRC	0.26 NFRC	135	New	Tinted	Units B-E
17	Window Rear (SW)	4,368	0.300 NFRC	0.26 NFRC	225	New	Tinted	Unit A
18	Window Left (SE)	3,752	0.300 NFRC	0.26 NFRC	135	New	Tinted	Unit A
19	Window Rear (SW)	4,368	0.300 NFRC	0.26 NFRC	225	New	Tinted	Unit K
20	Window Right (NW)	4,424	0.300 NFRC	0.26 NFRC	315	New	Tinted	Unit K
21	Window Right (NW)	10,864	0.300 NFRC	0.26 NFRC	315	New	Tinted	Units H-J
22	Window Front (NE)	4,312	0.300 NFRC	0.26 NFRC	45	New	Tinted	Unit G
23	Window Right (NW)	3,640	0.300 NFRC	0.26 NFRC	315	New	Tinted	Unit G
24	Window Front (NE)	316	0.300 NFRC	0.26 NFRC	45	New	Tinted	Units F
25	Window Left (SE)	264	0.300 NFRC	0.26 NFRC	135	New	Tinted	Units F
26	Window Left (SE)	768	0.300 NFRC	0.26 NFRC	135	New	Tinted	Units B-D

(1) U-factor Type: 116-A Default Table from Standards, Table NI-1 Default Table from the ACM Manual Appendix, NFRC Labeled value.
(2) SHGC Type: 116-B Default Table from Standards, COG Center of Glass, NFRC Labeled Value

EXTERIOR SHADING

#	Exterior Shade Type	SHGC	Window Hgt. Wd.	Overhang Len. Hgt. LExt. RExt.	Left Fin Dist. Len. Hgt.	Right Fin Dist. Len. Hgt.
14	None	0.76				
15	None	0.76				
16	None	0.76				
17	None	0.76				
18	None	0.76	8.0 33.5	0.0 0.0 0.0 0.0		
19	None	0.76				
20	None	0.76	8.0 39.5	0.0 0.0 0.0 0.0		
21	None	0.76				
22	None	0.76				
23	None	0.76				
24	None	0.76				
25	None	0.76				
26	None	0.76				

MINIMUM SKYLIGHT AREA FOR LARGE ENCLOSED SPACES

☐ **The proposed building is in climate zones 2 through 15 and contains an enclosed space with floor area greater than 25,000 ft2, a ceiling height greater than 15 feet, and an LPD for general lighting of at least 0.5 W/ft2. See Section 143(c). If this box is checked, ENV-4-C must be filled out. when submitting under the Prescriptive Compliance Approach.**

Run Initiation Time: 08/12/09 14:19:16 Run Code: 1250111956

CERTIFICATE OF COMPLIANCE ENV-1-C

PROJECT NAME High Rise Res **DATE**

OPAQUE SURFACES

#	Surface Type	Area	U-Fac.	Insulation Cav.	Insulation Cont.	Act. Azm.	Tilt	Cond.* Status	Joint Appendix IV Reference	Location / Comments
41	Wall	117	0.224	R-11	R-0.0	45	90	New	11-A2	Unit G
42	Wall	103	0.224	R-11	R-0.0	315	90	New	11-A2	Unit G
43	Wall	264	0.224	R-11	R-0.0	45	90	New	11-A2	3rd Floor Spa
44	Floor	1,917	0.090	R-8	R-0.0	0	180	New	25-A5	3rd Floor Spa
45	Wall	117	0.224	R-11	R-0.0	225	90	New	11-A2	3rd Floor Unit 7
46	Floor	745	0.090	R-8	R-0.0	0	180	New	25-A5	3rd Floor Unit 7
47	Wall	117	0.224	R-11	R-0.0	225	90	New	11-A2	3rd Floor Unit 6
48	Wall	123	0.224	R-11	R-0.0	315	90	New	11-A2	3rd Floor Unit 6
49	Floor	745	0.090	R-8	R-0.0	0	180	New	25-A5	3rd Floor Unit 6
50	Wall	126	0.224	R-11	R-0.0	45	90	New	11-A2	3rd Floor Unit 5
51	Wall	63	0.224	R-11	R-0.0	315	90	New	11-A2	3rd Floor Unit 5
52	Floor	830	0.090	R-8	R-0.0	0	180	New	25-A5	3rd Floor Unit 5
53	Wall	0	0.224	R-11	R-0.0	315	90	New	11-A2	3rd Floor Lobby
54	Floor	2,250	0.090	R-8	R-0.0	0	180	New	25-A5	3rd Floor Lobby
55	Wall	126	0.224	R-11	R-0.0	225	90	New	11-A2	Unit 4
56	Wall	102	0.224	R-11	R-0.0	315	90	New	11-A2	Unit 4
57	Wall	375	0.224	R-11	R-0.0	315	90	New	11-A2	Units 2-3
58	Wall	117	0.224	R-11	R-0.0	315	90	New	11-A2	Unit 1
59	Wall	337	0.224	R-11	R-0.0	45	90	New	11-A2	Unit 1
60	Wall	456	0.224	R-11	R-0.0	45	90	New	11-A2	Retail

* N, E, A, R (New, Existing, Altered, Removed)

FENESTRATION SURFACES

☐ More than or equal to 10,000 sq.ft. of site-built fenestration area must include a label certificate either issued by NFRC or provide a CEC Default Label Certificate using the default U-factors from Standards Table 116-A and B. Certificate shall be filed in the contractor's project office during construction and in the building manager's office after construction

#	Type	Area	U-Fac.[1]	SHGC[2]	Act. Azm.	Cond. Stat.	Glazing Type	Location/ Comments
27	Window Right (NW)	56	0.300 NFRC	0.26 NFRC	315	New	Tinted	Unit A
28	Window Rear (SW)	312	0.300 NFRC	0.26 NFRC	225	New	Tinted	Unit A
29	Window Left (SE)	268	0.300 NFRC	0.26 NFRC	135	New	Tinted	Unit A
30	Window Left (SE)	56	0.300 NFRC	0.26 NFRC	135	New	Tinted	Unit K
31	Window Rear (SW)	312	0.300 NFRC	0.26 NFRC	225	New	Tinted	Unit K
32	Window Right (NW)	316	0.300 NFRC	0.26 NFRC	315	New	Tinted	Unit K
33	Window Right (NW)	768	0.300 NFRC	0.26 NFRC	315	New	Tinted	Unit H-J
34	Window Front (NE)	312	0.300 NFRC	0.26 NFRC	45	New	Tinted	Unit G
35	Window Right (NW)	260	0.300 NFRC	0.26 NFRC	315	New	Tinted	Unit G
36	Window Rear (SW)	192	0.300 NFRC	0.26 NFRC	225	New	Tinted	3rd Floor Unit 7
37	Window Rear (SW)	120	0.300 NFRC	0.26 NFRC	225	New	Tinted	3rd Floor Unit 7
38	Window Rear (SW)	192	0.300 NFRC	0.26 NFRC	225	New	Tinted	3rd Floor Unit 6
39	Window Rear (SW)	120	0.300 NFRC	0.26 NFRC	225	New	Tinted	3rd Floor Unit 6

(1) U-factor Type: 116-A Default Table from Standards, Table NI-1 Default Table from the ACM Manual Appendix, NFRC Labeled value.
(2) SHGC Type: 116-B Default Table from Standards, COG Center of Glass, NFRC Labeled Value

EXTERIOR SHADING

#	Exterior Shade Type	SHGC	Window Hgt.	Window Wd.	Overhang Len.	Overhang Hgt.	Overhang LExt.	Overhang RExt.	Left Fin Dist.	Left Fin Len.	Left Fin Hgt.	Right Fin Dist.	Right Fin Len.	Right Fin Hgt.
27	None	0.76												
28	None	0.76												
29	None	0.76	8.0	33.5	0.0	0.0	0.0	0.0						
30	None	0.76												
31	None	0.76												
32	None	0.76	8.0	39.5	0.0	0.0	0.0	0.0						
33	None	0.76	8.0	96.0	0.0	0.0	0.0	0.0						
34	None	0.76												
35	None	0.76	8.0	32.5	0.0	0.0	0.0	0.0						
36	None	0.76												
37	None	0.76	8.0	15.0	6.0	0.1	6.0	6.0						
38	None	0.76												
39	None	0.76	8.0	15.0	6.0	0.1	6.0	6.0						

MINIMUM SKYLIGHT AREA FOR LARGE ENCLOSED SPACES

☐ **The proposed building is in climate zones 2 through 15 and contains an enclosed space with floor area greater than 25,000 ft2, a ceiling height greater than 15 feet, and an LPD for general lighting of at least 0.5 W/ft2. See Section 143(c). If this box is checked, ENV-4-C must be filled out. when submitting under the Prescriptive Compliance Approach.**

Run Initiation Time: 08/12/09 14:19:16 Run Code: 1250111956

CERTIFICATE OF COMPLIANCE ENV-1-C

PROJECT NAME High Rise Res **DATE**

OPAQUE SURFACES

#	Surface Type	Area	U-Fac.	Insulation Cav.	Insulation Cont.	Act. Azm.	Tilt	Cond.* Status	Joint Appendix IV Reference	Location / Comments
61	Wall	674	0.224	R-11	R-0.0	315	90	New	11-A2	Retail
62	Door	144	1.450	None	R-0.0	315	90	New	28-A1	Retail
63	Floor	5,500	0.090	R-8	R-0.0	0	180	New	25-A5	Retail
64	Wall	1,023	0.224	R-11	R-0.0	225	90	New	11-A2	Lobby
65	Floor	1,046	0.090	R-8	R-0.0	0	180	New	25-A5	Lobby
66	Wall	280	0.224	R-11	R-0.0	315	90	New	11-A2	Lobby
67	Door	48	1.450	None	R-0.0	315	90	New	28-A1	Lobby

* N, E, A, R (New, Existing, Altered, Removed)

FENESTRATION SURFACES

☐ More than or equal to 10,000 sq.ft. of site-built fenestration area must include a label certificate either issued by NFRC or provide a CEC Default Label Certificate using the default U-factors from Standards Table 116-A and B. Certificate shall be filed in the contractor's project office during construction and in the building manager's office after construction

#	Type	Area	U-Fac.[1]	SHGC[2]	Act. Azm.	Cond. Stat.	Glazing Type	Location/ Comments
40	Window Right (NW)	108	0.300 NFRC	0.26 NFRC	315	New	Tinted	3rd Floor Unit 6
41	Window Right (NW)	168	0.300 NFRC	0.26 NFRC	315	New	Tinted	3rd Floor Unit 5
42	Window Right (NW)	220	0.300 NFRC	0.26 NFRC	315	New	Tinted	3rd Floor Lobby
43	Window Right (NW)	168	0.300 NFRC	0.26 NFRC	315	New	Tinted	Unit 4
44	Window Right (NW)	120	0.300 NFRC	0.26 NFRC	315	New	Tinted	Units 2-3
45	Window Right (NW)	120	0.300 NFRC	0.26 NFRC	315	New	Tinted	Unit 1
46	Window Front (NE)	120	0.300 NFRC	0.26 NFRC	45	New	Tinted	Unit 1
47	Window Front (NE)	336	0.300 NFRC	0.26 NFRC	45	New	Tinted	Retail
48	Window Right (NW)	1,288	0.300 NFRC	0.26 NFRC	315	New	Tinted	Retail
49	Window Right (NW)	864	0.300 NFRC	0.26 NFRC	315	New	Tinted	Retail
50	Window Right (NW)	464	0.300 NFRC	0.26 NFRC	315	New	Tinted	Lobby

(1) U-factor Type: 116-A Default Table from Standards, Table NI-1 Default Table from the ACM Manual Appendix, NFRC Labeled value.
(2) SHGC Type: 116-B Default Table from Standards, COG Center of Glass, NFRC Labeled Value

EXTERIOR SHADING

#	Exterior Shade Type	SHGC	Window Hgt.	Window Wd.	Overhang Len.	Overhang Hgt.	Overhang LExt.	Overhang RExt.	Left Fin Dist.	Left Fin Len.	Left Fin Hgt.	Right Fin Dist.	Right Fin Len.	Right Fin Hgt.
40	None	0.76	8.0	16.0	0.0	0.0	0.0	0.0						
41	None	0.76	8.0	21.0	0.0	0.0	0.0	0.0						
42	None	0.76	11.0	20.0	10.0	0.1	10.0	10.0						
43	None	0.76	8.0	21.0	0.0	0.0	0.0	0.0						
44	None	0.76	6.0	20.0	2.0	0.1	2.0	2.0						
45	None	0.76	6.0	20.0	4.0	0.1	4.0	4.0						
46	None	0.76	6.0	20.0	4.0	0.1	4.0	4.0						
47	None	0.76												
48	None	0.76												
49	None	0.76	16.0	54.0	6.0	0.1	6.0	6.0						
50	None	0.76	32.0	16.0	10.0	0.1	10.0	10.0						

MINIMUM SKYLIGHT AREA FOR LARGE ENCLOSED SPACES

☐ **The proposed building is in climate zones 2 through 15 and contains an enclosed space with floor area greater than 25,000 ft2, a ceiling height greater than 15 feet, and an LPD for general lighting of at least 0.5 W/ft2. See Section 143(c). If this box is checked, ENV-4-C must be filled out. when submitting under the Prescriptive Compliance Approach.**

Run Initiation Time: 08/12/09 14:19:16 Run Code: 1250111956

CERTIFICATE OF COMPLIANCE (Part 1 of 3) LTG-1-C

PROJECT NAME	DATE
High Rise Res	

INSTALLED INDOOR LIGHTING POWER FOR CONDITIONED AND UNCONDITIONED SPACES

	INSTALLED WATTS
INSTALLED LIGHTING, CONDITIONED SPACES (From LTG-2-C)	16,211
PORTABLE LIGHTING (From LTG-3-C)	0
LIGHTING CONTROL CREDIT, CONDITIONED SPACES (From LTG-4-C)	0
CONDITIONED SPACE ADJUSTED INSTALLED LIGHTING POWER	16,211
INSTALLED LIGHTING, UNCONDITIONED SPACES (From LTG-2-C)	1,351
LIGHTING CONTROL CREDIT, UNCONDITIONED SPACES (From LTG-4-C)	0
UNCONDITIONED SPACE ADJUSTED INSTALLED LIGHTING POWER	1,351

ALLOWED INDOOR LIGHTING POWER FOR CONDITIONED SPACES

- ☐ COMPLETE BUILDING METHOD (From LTG-5-C)
- ☐ AREA CATEGORY METHOD (From LTG-5-C)
- ☐ TAILORED METHOD (From LTG-5-C)

	ALLOWED WATTS
ALLOWED LIGHTING POWER	16,211

ALTERNATE COMPLIANCE

- ☒ PERFORMANCE METHOD
- ☐ COMMMON LIGHTING SYSTEM (From LTG-8-C)

ALLOWED INDOOR LIGHTING POWER FOR UNCONDITIONED SPACES (From LTG-5-C)	1,351

MANDATORY INDOOR AND DAYLIGHTING AUTOMATIC CONTROLS

CONTROL LOCATION (Room #)	CONTROL IDENTIFICATION	CONTROL TYPE (Auto Time Switch, Dimming, etc.)	SPACE CONTROLLED	Check if Daylighting	NOTE TO FIELD

NOTES TO FIELD - For Building Department Use Only

Run Initiation Time: 08/12/09 14:19:16 Run Code: 1250111956

CERTIFICATE OF COMPLIANCE (Part 3 of 3) LTG-1-C

PROJECT NAME	DATE
High Rise Res	

Designer:

This form is to be used by the designer and attached to the plans. Listed below are all the acceptance tests for lighting systems. The designer is required to check the boxes by all acceptance tests that apply and list all equipment that require an acceptance test. If all equipment of a certain type requires a test, list the equipment description and the number of systems to be tested in parentheses. The NJ number designates the Section in the Appendix of the Nonresidential ACM Manual that describes the test. Also indicate the person responsible for performing the tests (i.e. the installing contractor, design professional or an agent selected by the owner). Since this form will be part of the plans, completion of this section will allow the responsible party to budget for the scope of work appropriately.

Building Departments:

Before an occupancy permit is granted for a newly constructed building or space, or a new lighting system system serving a building or space is operated for normal use, all control devices serving the building or space shall be certified as meeting the Acceptance Requirements for Code Compliance. In addition a Certificate of Acceptance, LTG-1-A, Forms shall be submitted to the building department that:

A. Certifies plans, specifications, installation certificates, and operating and maintenance information meet the requirements of §10-103(b) and Title 24 Part 6.

Test Description	Test Performed By:
☐ LTG-2-A: Lighting Control Acceptance Document - Occupancy Sensor Acceptance - Manual Daylight Controls Acceptance - Automatic Time Switch Control Acceptance Equipment requiring acceptance testing _____	
☐ LTG-3-A: Automatic Daylighting Controls Acceptance Document Equipment requiring acceptance testing _____	

CERTIFICATE OF COMPLIANCE MECH-1-C

PROJECT NAME	DATE
High Rise Res	

Designer:

This form is to be used by the designer and attached to the plans. Listed below are all the acceptance tests for mechanical systems. The designer is required to check the boxes by all acceptance tests that apply and list all equipment that requires an acceptance test. If all equipment of a certain type requires a test, list the equipment description and the number of systems to be tested in parentheses. The NJ number designates the Section in the Appendix of the Nonresidential ACM Manual that describes the test. Also indicate the person responsible for performing the tests (i.e. the installing contractor, design professional or an agent selected by the owner). Since this form will be part of the plans, completion of this section will allow the responsible party to budget for the scope of work appropriately.

Building Departments:

SYSTEM ACCEPTANCE. Before an occupancy permit is granted for a newly constructed building or space, or a new space-conditioning system serving a building or space is operated for normal use, all control devices serving the building or space shall be certified as meeting the Acceptance Requirements for Code Compliance.

In addition a Certificate of Acceptance, MECH-1-A Form shall be submitted to the building department that certifies plans, specifications, installation certificates, and operating and maintenance information meet the requirements of Section 10-103(b) and Title 24 Part 6.

STATEMENT OF COMPLIANCE

☐ MECH-2-A: Ventilation System Acceptance Document
-Variable Air Volume Systems Outdoor Air Acceptance
-Constant Air Volume Systems Outdoor Air Acceptance
Equipment requiring acceptance testing _____

Test required on all New systems both New Construction and Retrofit.

☐ MECH-3-A: Packaged HVAC Systems Acceptance Document
Equipment requiring acceptance testing _____

Test required on all New systems both New Construction and Retrofit.

☐ MECH-4-A: Air-Side Economizer Acceptance Document
Equipment requiring acceptance testing _____

Test required on all New systems both New Construction and Retrofit. Units with economizers that are installed at the factory and certified with the commission do not require equipment testing but do require construction inspection.

☐ MECH-5-A: Air Distribution Acceptance Document
Equipment requiring acceptance testing _____

This test required If the unit serves 5,000 ft2 of space or less and 25% or more of the ducts are in nonconditioned or semiconditioned space like an attic. New systems that meet the above requirements. Retrofit systems that meet the above requirements and either extend ducts, replace ducts or replace the packaged unit.

☐ MECH-6-A: Demand Control Ventilation Acceptance Document
Equipment requiring acceptance testing _____

All new DCV controls installed on new or existing packaged systems must be tested.

☐ MECH-7-A: Supply Fan Variable Flow Control Acceptance Document
Equipment requiring acceptance testing _____

All new VAV fan volume controls installed on new or existing systems must be tested

☐ MECH-8-A: -Hydronic System Control Acceptance Document
-Variable Flow Controls *Applies to chilled and hot water systems.*
-Automatic Isolation Controls *Applies to new boilers and chillers and the primary pumps are connected to a common header.*
-Supply Water Temperature Reset Controls
Applies to new constant flow chilled and hot water systems that have a design capacity greater than or equal to 500,000 Btu/hr.
-Water-loop Heat Pump Controls
Applies to all new waterloop heat pump systems where the combined loop pumps are greater than 5 hp.
-Variable Frequency Controls *Applies to all new distribution pumps on new variable flow chilled, hydronic heat pump or condenser water systems where the pumps motors are greater than 5 hp.*
Equipment requiring acceptance testing _____

INDOOR LIGHTING SCHEDULE (Part 1 of 2) LTG-2-C

PROJECT NAME	DATE
High Rise Res	

INSTALLED LIGHTING POWER FOR CONDITIONED SPACES

Luminaire		Lamps/Ballasts				Installed Watts				
		C	D	E	F	G	H		I	J
Name	Type Description	Lamp Type	Number of Lamps per Luminaire	Watts per Lamp	Number of Ballast per Luminaire	Watts per Luminaire	CEC Default? Yes	CEC Default? No	Number of Luminaires	Installed Watts (G x I)
	Standard Allowance: 1046 sqft at 1.500 w/sf									1,569
	Standard Allowance: 1917 sqft at 1.000 w/sf									1,917
	Standard Allowance: 2250 sqft at 1.500 w/sf									3,375
	Standard Allowance: 5500 sqft at 1.700 w/sf									9,350

PAGE TOTAL	16,211
BUILDING TOTAL (sum of all pages)	16,211
PORTABLE LIGHTING (From LTG-3-C)	0
CONTROL CREDIT (From LTG-4-C)	0
ADJUSTED ACTUAL WATTS	16,211

Run Initiation Time: 08/12/09 14:19:16 Run Code: 1250111956

INDOOR LIGHTING SCHEDULE (Part 2 of 2) LTG-2-C

PROJECT NAME	DATE
High Rise Res	

INSTALLED LIGHTING POWER FOR UNCONDITIONED SPACES

Luminaire		Lamps/Ballasts				Installed Watts				
		C	D	E	F	G	H		I	J
Name	Type Description	Lamp Type	Number of Lamps per Luminaire	Watts per Lamp	Number of Ballast per Luminaire	Watts per Luminaire	CEC Default? Yes	CEC Default? No	Number of Luminaires	Installed Watts (G x I)
	Standard Allowance: 2251 sqft at 0.600 w/sf									1,351

PAGE TOTAL	1,351
BUILDING TOTAL (sum of all pages)	1,351
CONTROL CREDIT (From LTG-4-C)	0
ADJUSTED ACTUAL WATTS	1,351

INDOOR LIGHTING POWER ALLOWANCE LTG-5-C

PROJECT NAME	DATE
High Rise Res	

ALLOWED LIGHTING POWER (Choose One Method)

COMPLETE BUILDING METHOD - CONDITIONED SPACES

BUILDING CATEGORY (From Section 146 Table 146-B)	WATTS PER SF	COMPLETE BLDG. AREA	ALLOWED WATTS

AREA CATEGORY METHOD - CONDITIONED SPACES

AREA CATEGORY (From Section 146 Table 146-C)	WATTS PER SF	AREA (SF)	ALLOWED WATTS
PAGE TOTAL			
BUILDING TOTAL			
		AREA	WATTS

TAILORED METHOD - CONDITIONED SPACES

TOTAL ALLOWED WATTS (From LTG-6-C or from computer run.)	

UNCONDITIONED SPACES

Complete Building and Area Catagory Methods Category (From Section 146 Table 146-B&C)	WATTS PER SF	AREA (SF)	ALLOWED WATTS
Relocatable Public School	1.20	2,251	2,701
PAGE TOTAL		2,251	2,701
BUILDING TOTAL		2,251	2,701
		AREA	WATTS

TAILORED METHOD - UNCONDITIONED SPACES

TOTAL UNCONDITIONED SPACES ALLOWED WATTS (From LTG-5-C and LTG-6-C)	

Run Initiation Time: 08/12/09 14:19:16 Run Code: 1250111956

AIR SYSTEM REQUIREMENTS

Part 1 of 2 **MECH-2-C**

PROJECT NAME	DATE
High Rise Res	

SYSTEM FEATURES

		AIR SYSTEMS, Central or Single Zone		
ITEM OR SYSTEM TAG(S)		Tower 1 - 19th Flrs Unit P.1	Tower 1 - 19th Flr Unit V	Tower 1 - 19th Flrs Unit U
Number of Systems		1	1	1
MANDATORY MEASURES	**T-24 Section**	**Reference on Plans or Specification** [1]		
Heating Equipment Efficiency	112(a)	5.00 COP	5.00 COP	5.00 COP
Cooling Equipment Efficiency	112(a)	16.0 EER	16.0 EER	16.0 EER
Heat Pump Thermostat	112(b)	Yes	Yes	Yes
Furnace Controls	112(c), 115(a)	n/a	n/a	n/a
Natural Ventilation	121(b)	Yes	Yes	Yes
Minimum Ventilation	121(b)	332 cfm	255 cfm	357 cfm
VAV Minimum Position Control	121(c)	No	No	No
Demand Control Ventilation	121(c)	No	No	No
Time Control	121(c), 122(e)	Programmable Switch	Programmable Switch	Programmable Switch
Setback and Setup Control	122(e)	Heating Required	Heating Required	Heating Required
Outdoor Damper Control	122(f)	Auto	Auto	Auto
Isolation Zones	122(g)	n/a	n/a	n/a
Pipe Insulation	123			
Duct Insulation	124	R-4.2	R-4.2	R-4.2
PRESCRIPTIVE MEASURES				
Calculated Heating Capacity x 1.43 [2]	144 (a & b)	n/a	n/a	n/a
Proposed Heating Capacity [2]	144 (a & b)	63,836 btuh	63,042 btuh	77,548 btuh
Calculated Sensible Cooling Capacity x 1.21[2]	144 (a & b)	n/a	n/a	n/a
Proposed Sensible Cooling Capacity [2]	144 (a & b)	47,673 btuh	50,425 btuh	52,953 btuh
Fan Control	144 (c)	Constant Volume	Constant Volume	Constant Volume
DP Sensor Location	144 (c)			
Supply Pressure Reset (DDC only)	144 (c)	Yes	Yes	Yes
Simultaneous Heat/Cool	144 (d)	No	No	No
Economizer	144 (e)	No Economizer	No Economizer	No Economizer
Heating Air Supply Reset	144 (f)	Constant Temp	Constant Temp	Constant Temp
Cooling Air Supply Reset	144 (f)	Constant Temp	Constant Temp	Constant Temp
Duct Sealing for Prescriptive Compliance[3]	144 (k)	No	No	No

1: For each central and single zone air systems (or group of similar units) fill in the reference to sheet number and/or specification section and paragraph number where the required features are documented. If a requirement is not applicable, put "N/A" in the column.

2: Not required for hydronic heating and cooling. Either enter a value here or put in reference ot plans and specificatons per footnote 1.

3: Enter Yes if System is: Constant Volume, Single Zone; Serves < 5,000 sqft; Has > 25% duct in unconditioned space. Duct sealing is required for Prescriptive Compliance, see PERF-1 for performance method duct sealing requirements.

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AIR SYSTEM REQUIREMENTS

Part 1 of 2 **MECH-2-C**

PROJECT NAME	DATE
High Rise Res	

SYSTEM FEATURES

		AIR SYSTEMS, Central or Single Zone		
ITEM OR SYSTEM TAG(S)		Tower 1 - 19th Flrs Unit S	Tower 1 - 19th Flrs Unit R	Tower 1 - 19th Flrs Unit Q
Number of Systems		1	1	1
MANDATORY MEASURES	**T-24 Section**	**Reference on Plans or Specification** [1]		
Heating Equipment Efficiency	112(a)	5.40 COP	5.00 COP	5.00 COP
Cooling Equipment Efficiency	112(a)	16.0 EER	16.0 EER	16.0 EER
Heat Pump Thermostat	112(b)	Yes	Yes	Yes
Furnace Controls	112(c), 115(a)	n/a	n/a	n/a
Natural Ventilation	121(b)	Yes	Yes	Yes
Minimum Ventilation	121(b)	348 cfm	263 cfm	317 cfm
VAV Minimum Position Control	121(c)	No	No	No
Demand Control Ventilation	121(c)	No	No	No
Time Control	121(c), 122(e)	Programmable Switch	Programmable Switch	Programmable Switch
Setback and Setup Control	122(e)	Heating Required	Heating Required	Heating Required
Outdoor Damper Control	122(f)	Auto	Auto	Auto
Isolation Zones	122(g)	n/a	n/a	n/a
Pipe Insulation	123			
Duct Insulation	124	R-4.2	R-4.2	R-4.2
PRESCRIPTIVE MEASURES				
Calculated Heating Capacity x 1.43 [2]	144 (a & b)	n/a	n/a	n/a
Proposed Heating Capacity [2]	144 (a & b)	46,097 btuh	76,496 btuh	77,090 btuh
Calculated Sensible Cooling Capacity x 1.21 [2]	144 (a & b)	n/a	n/a	n/a
Proposed Sensible Cooling Capacity [2]	144 (a & b)	33,182 btuh	55,580 btuh	54,151 btuh
Fan Control	144 (c)	Constant Volume	Constant Volume	Constant Volume
DP Sensor Location	144 (c)			
Supply Pressure Reset (DDC only)	144 (c)	Yes	Yes	Yes
Simultaneous Heat/Cool	144 (d)	No	No	No
Economizer	144 (e)	No Economizer	No Economizer	No Economizer
Heating Air Supply Reset	144 (f)	Constant Temp	Constant Temp	Constant Temp
Cooling Air Supply Reset	144 (f)	Constant Temp	Constant Temp	Constant Temp
Duct Sealing for Prescriptive Compliance [3]	144 (k)	No	No	No

1: For each central and single zone air systems (or group of similar units) fill in the reference to sheet number and/or specification section and paragraph number where the required features are documented. If a requirement is not applicable, put "N/A" in the column.

2: Not required for hydronic heating and cooling. Either enter a value here or put in reference ot plans and specificatons per footnote 1.

3: Enter Yes if System is: Constant Volume, Single Zone; Serves < 5,000 sqft; Has > 25% duct in unconditioned space. Duct sealing is required for Prescriptive Compliance, see PERF-1 for performance method duct sealing requirements.

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AIR SYSTEM REQUIREMENTS

Part 1 of 2 **MECH-2-C**

PROJECT NAME	DATE
High Rise Res	

SYSTEM FEATURES

		AIR SYSTEMS, Central or Single Zone		
ITEM OR SYSTEM TAG(S)		Tower 1 - 5-18th Floors Unit	Tower 1 - 5-18th Flrs Units	Tower 1 - 5-18th Floors Unit
Number of Systems		F 14	B-E 56	A 14
MANDATORY MEASURES	**T-24 Section**	**Reference on Plans or Specification** [1]		
Heating Equipment Efficiency	112(a)	5.00 COP	4.90 COP	5.50 COP
Cooling Equipment Efficiency	112(a)	16.0 EER	16.0 EER	16.0 EER
Heat Pump Thermostat	112(b)	Yes	Yes	Yes
Furnace Controls	112(c), 115(a)	n/a	n/a	n/a
Natural Ventilation	121(b)	Yes	Yes	Yes
Minimum Ventilation	121(b)	2409 cfm	5972 cfm	2480 cfm
VAV Minimum Position Control	121(c)	No	No	No
Demand Control Ventilation	121(c)	No	No	No
Time Control	121(c), 122(e)	Programmable Switch	Programmable Switch	Programmable Switch
Setback and Setup Control	122(e)	Heating Required	Heating Required	Heating Required
Outdoor Damper Control	122(f)	Auto	Auto	Auto
Isolation Zones	122(g)	n/a	n/a	n/a
Pipe Insulation	123			
Duct Insulation	124	R-4.2	R-4.2	R-4.2
PRESCRIPTIVE MEASURES				
Calculated Heating Capacity x 1.43 [2]	144 (a & b)	n/a	n/a	n/a
Proposed Heating Capacity [2]	144 (a & b)	443,089 btuh	1,487,678 btuh	502,183 btuh
Calculated Sensible Cooling Capacity x 1.21 [2]	144 (a & b)	n/a	n/a	n/a
Proposed Sensible Cooling Capacity [2]	144 (a & b)	386,366 btuh	1,238,254 btuh	388,053 btuh
Fan Control	144 (c)	Constant Volume	Constant Volume	Constant Volume
DP Sensor Location	144 (c)			
Supply Pressure Reset (DDC only)	144 (c)	Yes	Yes	Yes
Simultaneous Heat/Cool	144 (d)	No	No	No
Economizer	144 (e)	No Economizer	No Economizer	No Economizer
Heating Air Supply Reset	144 (f)	Constant Temp	Constant Temp	Constant Temp
Cooling Air Supply Reset	144 (f)	Constant Temp	Constant Temp	Constant Temp
Duct Sealing for Prescriptive Compliance [3]	144 (k)	No	No	No

1: For each central and single zone air systems (or group of similar units) fill in the reference to sheet number and/or specification section and paragraph number where the required features are documented. If a requirement is not applicable, put "N/A" in the column.

2: Not required for hydronic heating and cooling. Either enter a value here or put in reference ot plans and specificatons per footnote 1.

3: Enter Yes if System is: Constant Volume, Single Zone; Serves < 5,000 sqft; Has > 25% duct in unconditioned space. Duct sealing is required for Prescriptive Compliance, see PERF-1 for performance method duct sealing requirements.

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AIR SYSTEM REQUIREMENTS

Part 1 of 2 **MECH-2-C**

PROJECT NAME	DATE
High Rise Res	

SYSTEM FEATURES

		AIR SYSTEMS, Central or Single Zone		
ITEM OR SYSTEM TAG(S)		Tower 1 - 5-18th Floors Unit	Tower 1 - 5-18th Flrs Units	Tower 1 - 5-18th Floors Unit
Number of Systems		K 14	H-J 56	G 14
MANDATORY MEASURES	**T-24 Section**	**Reference on Plans or Specification** [1]		
Heating Equipment Efficiency	112(a)	5.50 COP	4.90 COP	5.00 COP
Cooling Equipment Efficiency	112(a)	16.0 EER	16.0 EER	16.0 EER
Heat Pump Thermostat	112(b)	Yes	Yes	Yes
Furnace Controls	112(c), 115(a)	n/a	n/a	n/a
Natural Ventilation	121(b)	Yes	Yes	Yes
Minimum Ventilation	121(b)	2690 cfm	6846 cfm	2499 cfm
VAV Minimum Position Control	121(c)	No	No	No
Demand Control Ventilation	121(c)	No	No	No
Time Control	121(c), 122(e)	Programmable Switch	Programmable Switch	Programmable Switch
Setback and Setup Control	122(e)	Heating Required	Heating Required	Heating Required
Outdoor Damper Control	122(f)	Auto	Auto	Auto
Isolation Zones	122(g)	n/a	n/a	n/a
Pipe Insulation	123			
Duct Insulation	124	R-4.2	R-4.2	R-4.2
PRESCRIPTIVE MEASURES				
Calculated Heating Capacity x 1.43 [2]	144 (a & b)	n/a	n/a	n/a
Proposed Heating Capacity [2]	144 (a & b)	504,136 btuh	1,496,673 btuh	443,890 btuh
Calculated Sensible Cooling Capacity x 1.21[2]	144 (a & b)	n/a	n/a	n/a
Proposed Sensible Cooling Capacity [2]	144 (a & b)	373,883 btuh	1,183,331 btuh	386,438 btuh
Fan Control	144 (c)	Constant Volume	Constant Volume	Constant Volume
DP Sensor Location	144 (c)			
Supply Pressure Reset (DDC only)	144 (c)	Yes	Yes	Yes
Simultaneous Heat/Cool	144 (d)	No	No	No
Economizer	144 (e)	No Economizer	No Economizer	No Economizer
Heating Air Supply Reset	144 (f)	Constant Temp	Constant Temp	Constant Temp
Cooling Air Supply Reset	144 (f)	Constant Temp	Constant Temp	Constant Temp
Duct Sealing for Prescriptive Compliance[3]	144 (k)	No	No	No

1: For each central and single zone air systems (or group of similar units) fill in the reference to sheet number and/or specification section and paragraph number where the required features are documented. If a requirement is not applicable, put "N/A" in the column.

2: Not required for hydronic heating and cooling. Either enter a value here or put in reference ot plans and specificatons per footnote 1.

3: Enter Yes if System is: Constant Volume, Single Zone; Serves < 5,000 sqft; Has > 25% duct in unconditioned space. Duct sealing is required for Prescriptive Compliance, see PERF-1 for performance method duct sealing requirements.

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AIR SYSTEM REQUIREMENTS

Part 1 of 2 **MECH-2-C**

PROJECT NAME	DATE
High Rise Res	

SYSTEM FEATURES

		AIR SYSTEMS, Central or Single Zone		
ITEM OR SYSTEM TAG(S)		Tower 1 - 4th Floor Unit F	Tower 1 - 4th Floor Units B-D	Tower 1 - 4th Floor Unit A
Number of Systems		1	3	1
MANDATORY MEASURES	**T-24 Section**	**Reference on Plans or Specification** [1]		
Heating Equipment Efficiency	112(a)	5.00 COP	5.00 COP	5.00 COP
Cooling Equipment Efficiency	112(a)	16.0 EER	16.0 EER	16.0 EER
Heat Pump Thermostat	112(b)	Yes	Yes	Yes
Furnace Controls	112(c), 115(a)	n/a	n/a	n/a
Natural Ventilation	121(b)	Yes	Yes	Yes
Minimum Ventilation	121(b)	172 cfm	416 cfm	177 cfm
VAV Minimum Position Control	121(c)	No	No	No
Demand Control Ventilation	121(c)	No	No	No
Time Control	121(c), 122(e)	Programmable Switch	Programmable Switch	Programmable Switch
Setback and Setup Control	122(e)	Heating Required	Heating Required	Heating Required
Outdoor Damper Control	122(f)	Auto	Auto	Auto
Isolation Zones	122(g)	n/a	n/a	n/a
Pipe Insulation	123			
Duct Insulation	124	R-4.2	R-4.2	R-4.2
PRESCRIPTIVE MEASURES				
Calculated Heating Capacity x 1.43 [2]	144 (a & b)	n/a	n/a	n/a
Proposed Heating Capacity [2]	144 (a & b)	31,649 btuh	93,901 btuh	31,703 btuh
Calculated Sensible Cooling Capacity x 1.21 [2]	144 (a & b)	n/a	n/a	n/a
Proposed Sensible Cooling Capacity [2]	144 (a & b)	27,598 btuh	79,829 btuh	27,357 btuh
Fan Control	144 (c)	Constant Volume	Constant Volume	Constant Volume
DP Sensor Location	144 (c)			
Supply Pressure Reset (DDC only)	144 (c)	Yes	Yes	Yes
Simultaneous Heat/Cool	144 (d)	No	No	No
Economizer	144 (e)	No Economizer	No Economizer	No Economizer
Heating Air Supply Reset	144 (f)	Constant Temp	Constant Temp	Constant Temp
Cooling Air Supply Reset	144 (f)	Constant Temp	Constant Temp	Constant Temp
Duct Sealing for Prescriptive Compliance [3]	144 (k)	No	No	No

1: For each central and single zone air systems (or group of similar units) fill in the reference to sheet number and/or specification section and paragraph number where the required features are documented. If a requirement is not applicable, put "N/A" in the column.

2: Not required for hydronic heating and cooling. Either enter a value here or put in reference ot plans and specificatons per footnote 1.

3: Enter Yes if System is: Constant Volume, Single Zone; Serves < 5,000 sqft; Has > 25% duct in unconditioned space. Duct sealing is required for Prescriptive Compliance, see PERF-1 for performance method duct sealing requirements.

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AIR SYSTEM REQUIREMENTS

Part 1 of 2 **MECH-2-C**

PROJECT NAME	DATE
High Rise Res	

SYSTEM FEATURES

		AIR SYSTEMS, Central or Single Zone		
ITEM OR SYSTEM TAG(S)		Tower 1 - 4th Floor Unit K	Tower 1 - 4th Floor Units H-J	Tower 1 - 4th Floor Unit G
Number of Systems		1	3	1
MANDATORY MEASURES	**T-24 Section**	**Reference on Plans or Specification** [1]		
Heating Equipment Efficiency	112(a)	5.00 COP	4.90 COP	5.00 COP
Cooling Equipment Efficiency	112(a)	16.0 EER	16.0 EER	16.0 EER
Heat Pump Thermostat	112(b)	Yes	Yes	Yes
Furnace Controls	112(c), 115(a)	n/a	n/a	n/a
Natural Ventilation	121(b)	Yes	Yes	Yes
Minimum Ventilation	121(b)	192 cfm	484 cfm	179 cfm
VAV Minimum Position Control	121(c)	No	No	No
Demand Control Ventilation	121(c)	No	No	No
Time Control	121(c), 122(e)	Programmable Switch	Programmable Switch	Programmable Switch
Setback and Setup Control	122(e)	Heating Required	Heating Required	Heating Required
Outdoor Damper Control	122(f)	Auto	Auto	Auto
Isolation Zones	122(g)	n/a	n/a	n/a
Pipe Insulation	123			
Duct Insulation	124	R-4.2	R-4.2	R-4.2
PRESCRIPTIVE MEASURES				
Calculated Heating Capacity x 1.43 [2]	144 (a & b)	n/a	n/a	n/a
Proposed Heating Capacity [2]	144 (a & b)	31,846 btuh	81,408 btuh	31,707 btuh
Calculated Sensible Cooling Capacity x 1.21[2]	144 (a & b)	n/a	n/a	n/a
Proposed Sensible Cooling Capacity [2]	144 (a & b)	27,913 btuh	61,146 btuh	27,604 btuh
Fan Control	144 (c)	Constant Volume	Constant Volume	Constant Volume
DP Sensor Location	144 (c)			
Supply Pressure Reset (DDC only)	144 (c)	Yes	Yes	Yes
Simultaneous Heat/Cool	144 (d)	No	No	No
Economizer	144 (e)	No Economizer	No Economizer	No Economizer
Heating Air Supply Reset	144 (f)	Constant Temp	Constant Temp	Constant Temp
Cooling Air Supply Reset	144 (f)	Constant Temp	Constant Temp	Constant Temp
Duct Sealing for Prescriptive Compliance[3]	144 (k)	No	No	No

1: For each central and single zone air systems (or group of similar units) fill in the reference to sheet number and/or specification section and paragraph number where the required features are documented. If a requirement is not applicable, put "N/A" in the column.

2: Not required for hydronic heating and cooling. Either enter a value here or put in reference ot plans and specificatons per footnote 1.

3: Enter Yes if System is: Constant Volume, Single Zone; Serves < 5,000 sqft; Has > 25% duct in unconditioned space. Duct sealing is required for Prescriptive Compliance, see PERF-1 for performance method duct sealing requirements.

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AIR SYSTEM REQUIREMENTS

Part 1 of 2 **MECH-2-C**

PROJECT NAME	DATE
High Rise Res	

SYSTEM FEATURES

		AIR SYSTEMS, Central or Single Zone		
ITEM OR SYSTEM TAG(S)		Tower 1 - 3rd Floor Spa	Tower 1 - 3rd Floor Unit 7	Tower 1 - 3rd Floor Unit 6
Number of Systems		1	1	1
MANDATORY MEASURES	**T-24 Section**	**Reference on Plans or Specification** [1]		
Heating Equipment Efficiency	112(a)	5.00 COP	4.90 COP	5.00 COP
Cooling Equipment Efficiency	112(a)	16.0 EER	16.0 EER	16.0 EER
Heat Pump Thermostat	112(b)	Yes	Yes	Yes
Furnace Controls	112(c), 115(a)	n/a	n/a	n/a
Natural Ventilation	121(b)	Yes	Yes	Yes
Minimum Ventilation	121(b)	288 cfm	112 cfm	112 cfm
VAV Minimum Position Control	121(c)	No	No	No
Demand Control Ventilation	121(c)	No	No	No
Time Control	121(c), 122(e)	Programmable Switch	Programmable Switch	Programmable Switch
Setback and Setup Control	122(e)	No Setback Required	Heating Required	Heating Required
Outdoor Damper Control	122(f)	Auto	Auto	Auto
Isolation Zones	122(g)	n/a	n/a	n/a
Pipe Insulation	123			
Duct Insulation	124	R-4.2	R-4.2	R-4.2
PRESCRIPTIVE MEASURES				
Calculated Heating Capacity x 1.43 [2]	144 (a & b)	n/a	n/a	n/a
Proposed Heating Capacity [2]	144 (a & b)	76,750 btuh	26,663 btuh	31,109 btuh
Calculated Sensible Cooling Capacity x 1.21[2]	144 (a & b)	n/a	n/a	n/a
Proposed Sensible Cooling Capacity [2]	144 (a & b)	54,600 btuh	21,283 btuh	26,897 btuh
Fan Control	144 (c)	Constant Volume	Constant Volume	Constant Volume
DP Sensor Location	144 (c)			
Supply Pressure Reset (DDC only)	144 (c)	Yes	Yes	Yes
Simultaneous Heat/Cool	144 (d)	No	No	No
Economizer	144 (e)	No Economizer	No Economizer	No Economizer
Heating Air Supply Reset	144 (f)	Constant Temp	Constant Temp	Constant Temp
Cooling Air Supply Reset	144 (f)	Constant Temp	Constant Temp	Constant Temp
Duct Sealing for Prescriptive Compliance[3]	144 (k)	No	No	No

1: For each central and single zone air systems (or group of similar units) fill in the reference to sheet number and/or specification section and paragraph number where the required features are documented. If a requirement is not applicable, put "N/A" in the column.

2: Not required for hydronic heating and cooling. Either enter a value here or put in reference ot plans and specificatons per footnote 1.

3: Enter Yes if System is: Constant Volume, Single Zone; Serves < 5,000 sqft; Has > 25% duct in unconditioned space. Duct sealing is required for Prescriptive Compliance, see PERF-1 for performance method duct sealing requirements.

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AIR SYSTEM REQUIREMENTS

Part 1 of 2 **MECH-2-C**

PROJECT NAME	DATE
High Rise Res	

SYSTEM FEATURES

		AIR SYSTEMS, Central or Single Zone		
ITEM OR SYSTEM TAG(S)		Tower 1 - 3rd Floor Unit 5	Tower 1 - 3rd Floor Lobby	Tower 1 - 3rd Floor Unit 4
Number of Systems		1	1	1
MANDATORY MEASURES	**T-24 Section**	**Reference on Plans or Specification** [1]		
Heating Equipment Efficiency	112(a)	4.90 COP	5.00 COP	4.90 COP
Cooling Equipment Efficiency	112(a)	16.0 EER	16.0 EER	16.0 EER
Heat Pump Thermostat	112(b)	Yes	Yes	Yes
Furnace Controls	112(c), 115(a)	n/a	n/a	n/a
Natural Ventilation	121(b)	Yes	Yes	Yes
Minimum Ventilation	121(b)	125 cfm	2408 cfm	110 cfm
VAV Minimum Position Control	121(c)	No	No	No
Demand Control Ventilation	121(c)	No	No	No
Time Control	121(c), 122(e)	Programmable Switch	Programmable Switch	Programmable Switch
Setback and Setup Control	122(e)	Heating Required	No Setback Required	Heating Required
Outdoor Damper Control	122(f)	Auto	Auto	Auto
Isolation Zones	122(g)	n/a	n/a	n/a
Pipe Insulation	123			
Duct Insulation	124	R-4.2	R-4.2	R-4.2
PRESCRIPTIVE MEASURES				
Calculated Heating Capacity x 1.43 [2]	144 (a & b)	n/a	n/a	n/a
Proposed Heating Capacity [2]	144 (a & b)	26,785 btuh	92,325 btuh	26,606 btuh
Calculated Sensible Cooling Capacity x 1.21[2]	144 (a & b)	n/a	n/a	n/a
Proposed Sensible Cooling Capacity [2]	144 (a & b)	21,086 btuh	42,766 btuh	21,362 btuh
Fan Control	144 (c)	Constant Volume	Constant Volume	Constant Volume
DP Sensor Location	144 (c)			
Supply Pressure Reset (DDC only)	144 (c)	Yes	Yes	Yes
Simultaneous Heat/Cool	144 (d)	No	No	No
Economizer	144 (e)	No Economizer	No Economizer	No Economizer
Heating Air Supply Reset	144 (f)	Constant Temp	Constant Temp	Constant Temp
Cooling Air Supply Reset	144 (f)	Constant Temp	Constant Temp	Constant Temp
Duct Sealing for Prescriptive Compliance[3]	144 (k)	No	No	No

1: For each central and single zone air systems (or group of similar units) fill in the reference to sheet number and/or specification section and paragraph number where the required features are documented. If a requirement is not applicable, put "N/A" in the column.

2: Not required for hydronic heating and cooling. Either enter a value here or put in reference ot plans and specificatons per footnote 1.

3: Enter Yes if System is: Constant Volume, Single Zone; Serves < 5,000 sqft; Has > 25% duct in unconditioned space. Duct sealing is required for Prescriptive Compliance, see PERF-1 for performance method duct sealing requirements.

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AIR SYSTEM REQUIREMENTS

Part 1 of 2 **MECH-2-C**

PROJECT NAME	DATE
High Rise Res	

SYSTEM FEATURES

		AIR SYSTEMS, Central or Single Zone		
ITEM OR SYSTEM TAG(S)		Tower 1 - 3rd Floor Units 2-3	Tower 1 - 3rd Floor Unit 1	Tower 1 - Retail
Number of Systems		2	1	3
MANDATORY MEASURES	**T-24 Section**	**Reference on Plans or Specification** [1]		
Heating Equipment Efficiency	112(a)	4.90 COP	4.90 COP	5.00 COP
Cooling Equipment Efficiency	112(a)	16.0 EER	16.0 EER	16.0 EER
Heat Pump Thermostat	112(b)	Yes	Yes	Yes
Furnace Controls	112(c), 115(a)	n/a	n/a	n/a
Natural Ventilation	121(b)	Yes	Yes	Yes
Minimum Ventilation	121(b)	212 cfm	120 cfm	1375 cfm
VAV Minimum Position Control	121(c)	No	No	No
Demand Control Ventilation	121(c)	No	No	No
Time Control	121(c), 122(e)	Programmable Switch	Programmable Switch	Programmable Switch
Setback and Setup Control	122(e)	Heating Required	Heating Required	No Setback Required
Outdoor Damper Control	122(f)	Auto	Auto	Auto
Isolation Zones	122(g)	n/a	n/a	n/a
Pipe Insulation	123			
Duct Insulation	124	R-4.2	R-4.2	R-4.2
PRESCRIPTIVE MEASURES				
Calculated Heating Capacity x 1.43 [2]	144 (a & b)	n/a	n/a	n/a
Proposed Heating Capacity [2]	144 (a & b)	53,109 btuh	26,742 btuh	235,819 btuh
Calculated Sensible Cooling Capacity x 1.21 [2]	144 (a & b)	n/a	n/a	n/a
Proposed Sensible Cooling Capacity [2]	144 (a & b)	42,931 btuh	21,100 btuh	158,321 btuh
Fan Control	144 (c)	Constant Volume	Constant Volume	Constant Volume
DP Sensor Location	144 (c)			
Supply Pressure Reset (DDC only)	144 (c)	Yes	Yes	Yes
Simultaneous Heat/Cool	144 (d)	No	No	No
Economizer	144 (e)	No Economizer	No Economizer	No Economizer
Heating Air Supply Reset	144 (f)	Constant Temp	Constant Temp	Constant Temp
Cooling Air Supply Reset	144 (f)	Constant Temp	Constant Temp	Constant Temp
Duct Sealing for Prescriptive Compliance [3]	144 (k)	No	No	No

1: For each central and single zone air systems (or group of similar units) fill in the reference to sheet number and/or specification section and paragraph number where the required features are documented. If a requirement is not applicable, put "N/A" in the column.

2: Not required for hydronic heating and cooling. Either enter a value here or put in reference ot plans and specificatons per footnote 1.

3: Enter Yes if System is: Constant Volume, Single Zone; Serves < 5,000 sqft; Has > 25% duct in unconditioned space. Duct sealing is required for Prescriptive Compliance, see PERF-1 for performance method duct sealing requirements.

NOTES TO FIELD - For Building Department Use Only

Run Initiation Time: 08/12/09 14:19:16 Run Code: 1250111956

AIR SYSTEM REQUIREMENTS

Part 1 of 2 **MECH-2-C**

PROJECT NAME	DATE
High Rise Res	

SYSTEM FEATURES

		AIR SYSTEMS, Central or Single Zone		
ITEM OR SYSTEM TAG(S)		Tower 1 - Lobby and Other		
Number of Systems		3		
MANDATORY MEASURES	**T-24 Section**	**Reference on Plans or Specification** [1]		
Heating Equipment Efficiency	112(a)	5.00 COP		
Cooling Equipment Efficiency	112(a)	16.0 EER		
Heat Pump Thermostat	112(b)	Yes		
Furnace Controls	112(c), 115(a)	n/a		
Natural Ventilation	121(b)	Yes		
Minimum Ventilation	121(b)	1119 cfm		
VAV Minimum Position Control	121(c)	No		
Demand Control Ventilation	121(c)	No		
Time Control	121(c), 122(e)	Programmable Switch		
Setback and Setup Control	122(e)	No Setback Required		
Outdoor Damper Control	122(f)	Auto		
Isolation Zones	122(g)	n/a		
Pipe Insulation	123			
Duct Insulation	124	R-4.2		
PRESCRIPTIVE MEASURES				
Calculated Heating Capacity x 1.43 [2]	144 (a & b)	n/a		
Proposed Heating Capacity [2]	144 (a & b)	232,821 btuh		
Calculated Sensible Cooling Capacity x 1.21 [2]	144 (a & b)	n/a		
Proposed Sensible Cooling Capacity [2]	144 (a & b)	162,744 btuh		
Fan Control	144 (c)	Constant Volume		
DP Sensor Location	144 (c)			
Supply Pressure Reset (DDC only)	144 (c)	Yes		
Simultaneous Heat/Cool	144 (d)	No		
Economizer	144 (e)	No Economizer		
Heating Air Supply Reset	144 (f)	Constant Temp		
Cooling Air Supply Reset	144 (f)	Constant Temp		
Duct Sealing for Prescriptive Compliance [3]	144 (k)	No		

1: For each central and single zone air systems (or group of similar units) fill in the reference to sheet number and/or specification section and paragraph number where the required features are documented. If a requirement is not applicable, put "N/A" in the column.

2: Not required for hydronic heating and cooling. Either enter a value here or put in reference ot plans and specificatons per footnote 1.

3: Enter Yes if System is: Constant Volume, Single Zone; Serves < 5,000 sqft; Has > 25% duct in unconditioned space. Duct sealing is required for Prescriptive Compliance, see PERF-1 for performance method duct sealing requirements.

NOTES TO FIELD - For Building Department Use Only

Run Initiation Time: 08/12/09 14:19:16 Run Code: 1250111956

WATER SIDE SYSTEM REQUIREMENTS Part 2 of 2 MECH-2-C

PROJECT NAME	DATE
High Rise Res	

SYSTEM FEATURES

		[2] WATER SIDE SYSTEMS: Chillers, Towers, Boilers, Hydronic Loops		
ITEM OR SYSTEM TAG(S)		Baltimore Aircoil FXT-LQ661	Lochinvar CH1800	
Number of Systems		2	2	
MANDATORY MEASURES	**T-24 Section**	**Reference on Plans or Specification[1]**		
Equipment Efficiency	112(a)	13 F App	84%	
Pipe Insulation	123	n/a	HW Piping	
PRESCRIPTIVE MEASURES				
Calculated Capacity	144 (a & b)	1500 tons	n/a	
Proposed Capacity	144 (a & b)	n/a	3,024,000 btuh	
Tower Fan Controls	144 (h)	Variable-Speed-Fan	Required	
Tower Flow Controls	144 (h)	Fixed-Temp	n/a	
Variable Flow System Design	144 (j)	n/a		
Chiller and Boiler Isolation	144 (j)	n/a	n/a	
CHW and HHW Reset Controls	144 (j)	n/a	Required	
WLHP Isolation Valves	144 (j)	n/a	n/a	
VSD on CHW, CW & WLHP Pumps > 5 HP	144 (j)	n/a	Required	
DP Sensor Location	144 (j)	n/a	n/a	

1: For each chiller, cooling tower, boiler, and hydronic loop (or groups of similar equipment) fill in the reference to sheet number and/or specification section and paragraph number where the required features are documented. If a requirement is not applicable, put "N/A" in the column.

2: Water side systems include wet side system using other liquids such as glycol or brine.

		Service Hot Water, Pool Heating		
ITEM OR SYSTEM TAG(S)		DHW Heater		
Number of Systems		160		
MANDATORY MEASURES		**Reference on Plans or Specification[1]**		
Water Heater Certification	113 (a)	Takagi T-K2		
Water Heater Efficiency	113 (b)	85%		
Service Water Heating Installation	113 (c)			
Pool and Spa Efficiency and Control	114 (a)	n/a		
Pool and Spa Installation	114 (b)	n/a		
Pool Heater - No Pilot Light	115 (c)	n/a		
Spa Heater - No Pilot Light	115 (d)	n/a		

1: For each water heater, pool heat and domestic water loop (or groups of similar equipment) fill in the reference to sheet number and/or specification section and paragraph number where the required features are documented. If a requirement is not applicable, put "N/A" ins the column.

NOTES TO FIELD - For Building Department Use Only

Run Initiation Time: 08/12/09 14:19:16 Run Code: 1250111956

MECHANICAL VENTILATION MECH-3-C

PROJECT NAME	DATE
High Rise Res	

MECHANICAL VENTILATION (Section 121(b)2)

PRESCRIPTIVE REHEAT LIMITATION (Section 144(d))

	AREA BASIS			OCCUPANCY BASIS					VAV MINIMUM				
A	B	C	D	E	F	G	H	I	J	K	L	M	N
ZONE/SYSTEM	Condition Area (SF)	CFM per Square Foot	Min CFM by Area (B x C)	Number of People	CFM per Person	Min CFM by Occupant (E x F)	REQ'D V.A Max of (D or G)	Design Vent. Air CFM	30% of Design Zone Supply CFM	B x 0.4 CFM/sq. ft.	Max of Columns H, J, K or 300 CFM	Design Min. Air Setpoint	Transfer Air
Unit X	2,215	0.15	332				332	332					
Tower 1 - 19th Flrs Unit P.1						Total	332	332					
Unit R1-S1	1,700	0.15	255				255	255					
Tower 1 - 19th Flr Unit V						Total	255	255					
Unit Q	2,380	0.15	357				357	357					
Tower 1 - 19th Flrs Unit U						Total	357	357					
Unit S	2,320	0.15	348				348	348					
Tower 1 - 19th Flrs Unit S						Total	348	348					
Unit V-W	1,750	0.15	262				262	263					
Tower 1 - 19th Flrs Unit R						Total	262	263					
Unit Q	2,112	0.15	317				317	317					
Tower 1 - 19th Flrs Unit Q						Total	317	317					
Unit F	16,058	0.15	2,409				2,409	2,409					
Tower 1 - 5-18th Floors Unit F						Total	2,409	2,409					
Units B-E	39,816	0.15	5,972				5,972	5,972					
Tower 1 - 5-18th Flrs Units B-E						Total	5,972	5,972					
Unit A	16,534	0.15	2,480				2,480	2,480					
Tower 1 - 5-18th Floors Unit A						Total	2,480	2,480					
Unit K	17,934	0.15	2,690				2,690	2,690					
Tower 1 - 5-18th Floors Unit K						Total	2,690	2,690					
Units H-J	45,640	0.15	6,846				6,846	6,846					
Tower 1 - 5-18th Flrs Units H-J						Total	6,846	6,846					
Unit G	16,660	0.15	2,499				2,499	2,499					
Tower 1 - 5-18th Floors Unit G						Total	2,499	2,499					
Units F	1,147	0.15	172				172	172					

C	Minimum ventilation rate per Section 121, Table 121-A
E	Based on fixed seat or the greater of the expected number of occupants and 50% of the CBC occupant load for egress purposes for spaces without fixed seating.
H	Required Ventilation Air (REQ'D V.A.) is the larger of the ventilation rates calculated on and AREA or OCCUPANCY BASIS (column D or G).
I	Must be greater than or equal to H, or use Transfer Air (column N) to make up the difference.
J	Design fan supply cfm (Fan CFM) x 30%; or
K	Condition area (ft. sq.) x 04 cfm/ft. sq.; or
L	Maximum of Columns H, J, K, or 300 cfm
M	This must be less than or equal to Column L and greater that or equal to the sum of Columns H + N.
N	Transfer air must be provided where the Required Ventilation Air (column I) is greater than the Design Minimum Air (column M). Where required, transfer air must be greater than or equal to the difference between the Required Ventilation Air (column I) and the Design Minimum Air (column M), column H - M.

MECHANICAL VENTILATION MECH-3-C

PROJECT NAME	DATE
High Rise Res	

MECHANICAL VENTILATION (Section 121(b)2)

PRESCRIPTIVE REHEAT LIMITATION (Section 144(d))

	AREA BASIS			OCCUPANCY BASIS					VAV MINIMUM				
A	B	C	D	E	F	G	H	I	J	K	L	M	N
ZONE/SYSTEM	Condition Area (SF)	CFM per Square Foot	Min CFM by Area (B x C)	Number of People	CFM per Person	Min CFM by Occupant (E x F)	REQ'D V.A Max of (D or G)	Design Vent. Air CFM	30% of Design Zone Supply CFM	B x 0.4 CFM/sq. ft.	Max of Columns H, J, K or 300 CFM	Design Min. Air Setpoint	Transfer Air
Tower 1 - 4th Floor Unit F						Total	172	172					
Units B-D	2,773	0.15	416				416	416					
Tower 1 - 4th Floor Units B-D						Total	416	416					
Unit A	1,181	0.15	177				177	177					
Tower 1 - 4th Floor Unit A						Total	177	177					
Unit K	1,281	0.15	192				192	192					
Tower 1 - 4th Floor Unit K						Total	192	192					
Unit H-J	3,224	0.15	484				484	484					
Tower 1 - 4th Floor Units H-J						Total	484	484					
Unit G	1,190	0.15	178				178	179					
Tower 1 - 4th Floor Unit G						Total	178	179					
3rd Floor Spa	1,917	0.15	288				288	288					
Tower 1 - 3rd Floor Spa						Total	288	288					
3rd Floor Unit 7	745	0.15	112				112	112					
Tower 1 - 3rd Floor Unit 7						Total	112	112					
3rd Floor Unit 6	745	0.15	112				112	112					
Tower 1 - 3rd Floor Unit 6						Total	112	112					
3rd Floor Unit 5	830	0.15	125				125	125					
Tower 1 - 3rd Floor Unit 5						Total	125	125					
3rd Floor Lobby	2,250	0.15	338				338	2,408					
Tower 1 - 3rd Floor Lobby						Total	338	2,408					
Unit 4	730	0.15	110				110	110					
Tower 1 - 3rd Floor Unit 4						Total	110	110					
Units 2-3	1,415	0.15	212				212	212					
Tower 1 - 3rd Floor Units 2-3						Total	212	212					

C	Minimum ventilation rate per Section 121, Table 121-A
E	Based on fixed seat or the greater of the expected number of occupants and 50% of the CBC occupant load for egress purposes for spaces without fixed seating.
H	Required Ventilation Air (REQ'D V.A.) is the larger of the ventilation rates calculated on and AREA or OCCUPANCY BASIS (column D or G).
I	Must be greater than or equal to H, or use Transfer Air (column N) to make up the difference.
J	Design fan supply cfm (Fan CFM) x 30%; or
K	Condition area (ft. sq.) x 04 cfm/ft. sq.; or
L	Maximum of Columns H, J, K, or 300 cfm
M	This must be less than or equal to Column L and greater that or equal to the sum of Columns H + N.
N	Transfer air must be provided where the Required Ventilation Air (column I) is greater than the Design Minimum Air (column M). Where required, transfer air must be greater than or equal to the difference between the Required Ventilation Air (column I) and the Design Minimum Air (column M), column H - M.

MECHANICAL VENTILATION MECH-3-C

PROJECT NAME	DATE
High Rise Res	

MECHANICAL VENTILATION (Section 121(b)2)

PRESCRIPTIVE REHEAT LIMITATION (Section 144(d))

	AREA BASIS			OCCUPANCY BASIS					VAV MINIMUM				
A	B	C	D	E	F	G	H	I	J	K	L	M	N
ZONE/SYSTEM	Condition Area (SF)	CFM per Square Foot	Min CFM by Area (B x C)	Number of People	CFM per Person	Min CFM by Occupant (E x F)	REQ'D V.A Max of (D or G)	Design Vent. Air CFM	30% of Design Zone Supply CFM	B x 0.4 CFM/sq. ft.	Max of Columns H, J, K or 300 CFM	Design Min. Air Setpoint	Transfer Air
Unit 1	800	0.15	120				120	120					
Tower 1 - 3rd Floor Unit 1						Total	120	120					
Retail	5,500	0.25	1,375				1,375	1,375					
Tower 1 - Retail						Total	1,375	1,375					
Lobby	1,046	0.15	157				157	1,119					
Tower 1 - Lobby and Other						Total	157	1,119					

C	Minimum ventilation rate per Section 121, Table 121-A
E	Based on fixed seat or the greater of the expected number of occupants and 50% of the CBC occupant load for egress purposes for spaces without fixed seating.
H	Required Ventilation Air (REQ'D V.A.) is the larger of the ventilation rates calculated on and AREA or OCCUPANCY BASIS (column D or G).
I	Must be greater than or equal to H, or use Transfer Air (column N) to make up the difference.
J	Design fan supply cfm (Fan CFM) x 30%; or
K	Condition area (ft. sq.) x 04 cfm/ft. sq.; or
L	Maximum of Columns H, J, K, or 300 cfm
M	This must be less than or equal to Column L and greater that or equal to the sum of Columns H + N.
N	Transfer air must be provided where the Required Ventilation Air (column I) is greater than the Design Minimum Air (column M). Where required, transfer air must be greater than or equal to the difference between the Required Ventilation Air (column I) and the Design Minimum Air (column M), column H - M.

MECHANICAL EQUIPMENT DETAILS

Part 1 of 2 **MECH-5-C**

PROJECT NAME High Rise Res

DATE

CHILLER AND TOWER SUMMARY

Equipment Name	Equipment Type	Qty.	Efficiency	Tons	PUMPS Tot. Qty	GPM	BHP	Motor Eff.	Drive Eff.	Pump Control
Baltimore Aircoil FXT-LQ661	Tower w/30.0 bhp fan	2	13 F Approach	750	1	1,200	5.00	87.5%	97.0%	One-Speed, 3 Way Valves
Building Loop Pumps					3	600	20.00	91.0%	97.0%	Variable-Speed
Hot Water Pumps					2	140	1.00	82.5%	97.0%	Variable-Speed

DHW / BOILER SUMMARY

System Name	System Type	Distribution Type	Qty	Rated Input	Vol. (Gals.)	Condition Status	Energy Factor or RE	Standby Loss or Pilot	TANK INSUL. Ext. R-Val.
Lochinvar CH1800	Large Gas	Hydronic Heating	2	1,800,000	500	New	0.84	4.00%	16.0
Takagi T-K2	Instant Gas	No Pipe Insulation		185,000	0	New	0.84	0	n/a

MULTI-FAMILY CENTRAL WATER HEATING DETAILS

Hot Water Pump				Hot Water Piping Length (ft)			
Control	#	HP	Type	In Plenum	Outside	Buried	Add 1/2" Insulation

CENTRAL SYSTEM RATINGS

System Name	System Type	Qty	HEATING Output	Aux. kW	Eff.	COOLING Output	Efficiency	Condition Status	Economizer Type
CLIMATE MASTER SERIES TS060	Hydronic Heat Pump	2	70,400	0.0	5.00 COP	61,000	16.0 EER	New	No Economizer
CLIMATE MASTER SERIES TS070	Hydronic Heat Pump	11	85,800	0.0	5.00 COP	67,500	16.0 EER	New	No Economizer
CLIMATE MASTER SERIES TS042	Hydronic Heat Pump	1	49,400	0.0	5.40 COP	37,400	16.0 EER	New	No Economizer
CLIMATE MASTER SERIES TS030	Hydronic Heat Pump	36	34,900	0.0	5.00 COP	28,200	16.0 EER	New	No Economizer
CLIMATE MASTER SERIES TS024	Hydronic Heat Pump		29,600	0.0	4.90 COP	25,100	16.0 EER	New	No Economizer
CLIMATE MASTER SERIES TS036	Hydronic Heat Pump	28	39,800	0.0	5.50 COP	33,000	16.0 EER	New	No Economizer

CENTRAL SYSTEM FAN SUMMARY

System Name	Fan Type	SUPPLY FAN Motor Location	CFM	BHP	Motor Eff.	Drive Eff.	RETURN FAN CFM	BHP	Motor Eff.	Drive Eff.
CLIMATE MASTER SERIES TS060	Constant Volume	Draw-Through	1,580	0.50	76.0%	97.0%	none			
CLIMATE MASTER SERIES TS070	Constant Volume	Draw-Through	1,820	0.50	76.0%	97.0%	none			
CLIMATE MASTER SERIES TS042	Constant Volume	Draw-Through	1,060	0.25	64.0%	97.0%	none			
CLIMATE MASTER SERIES TS030	Constant Volume	Draw-Through	820	0.17	60.0%	97.0%	none			
CLIMATE MASTER SERIES TS024	Constant Volume	Draw-Through	620	0.10	49.0%	97.0%	none			
CLIMATE MASTER SERIES TS036	Constant Volume	Draw-Through	960	0.25	64.0%	97.0%	none			

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MECHANICAL EQUIPMENT DETAILS

Part 2 of 2 **MECH-5-C**

PROJECT NAME High Rise Res

DATE

ZONE TERMINAL SUMMARY

		TERMINAL UNIT			VAV			TERMINAL FAN			
Zone Name	System Name	System Type	Heating	Cooling	Qty.	Min CFM Ratio	Reheat Coil	CFM	BHP	Motor Eff.	Drive Eff.
Unit X	undefined (1)	VAV Box	0	0	1	100%					
Unit R1-S1	undefined (1)	VAV Box	0	0	1	100%					
Unit Q	undefined (1)	VAV Box	0	0	1	100%					
Unit S	undefined (1)	VAV Box	0	0	1	100%					
Unit V-W	undefined (1)	VAV Box	0	0	1	100%					
Unit Q	undefined (1)	VAV Box	0	0	1	100%					
Unit F	undefined (1)	VAV Box	0	0	14	100%					
Units B-E	undefined (1)	VAV Box	0	0	14	100%					
Unit A	undefined (1)	VAV Box	0	0	14	100%					
Unit K	undefined (1)	VAV Box	0	0	14	100%					
Units H-J	undefined (1)	VAV Box	0	0	14	100%					
Unit G	undefined (1)	VAV Box	0	0	14	100%					
Units F	undefined (1)	VAV Box	0	0	1	100%					
Units B-D	undefined (1)	VAV Box	0	0	1	100%					
Unit A	undefined (1)	VAV Box	0	0	1	100%					
Unit K	undefined (1)	VAV Box	0	0	1	100%					
Unit H-J	undefined (1)	VAV Box	0	0	1	100%					
Unit G	undefined (1)	VAV Box	0	0	1	100%					
3rd Floor Spa	undefined (1)	VAV Box	0	0	1	100%					
3rd Floor Unit 7	undefined (1)	VAV Box	0	0	1	100%					
3rd Floor Unit 6	undefined (1)	VAV Box	0	0	1	100%					
3rd Floor Unit 5	undefined (1)	VAV Box	0	0	1	100%					
3rd Floor Lobby	undefined (1)	VAV Box	0	0	1	100%					
Unit 4	undefined (1)	VAV Box	0	0	1	100%					
Units 2-3	undefined (1)	VAV Box	0	0	1	100%					
Unit 1	undefined (1)	VAV Box	0	0	1	100%					

EXHAUST FAN SUMMARY

EXHAUST FAN					
Room Name	Qty.	CFM	BHP	Motor Eff.	Drive Eff.

EXHAUST FAN					
Room Name	Qty.	CFM	BHP	Motor Eff.	Drive Eff.

Run Initiation Time: 08/12/09 14:19:16 Run Code: 1250111956

SAVINGS BY DESIGN

UTILITY INCENTIVE WORKSHEET UTIL-1

PROJECT NAME	DATE
High Rise Res	

Step 1 ANNUAL TDV ENERGY USE (kBtu/sqft-yr)

ENERGY COMPONENT	Standard	Proposed	Margin
Space Heating	1.64	0.76	0.87
Space Cooling	35.28	43.75	-8.46
Indoor Fans	33.50	38.35	-4.85
Heat Rejection	36.59	0.00	36.59
Pumps	4.87	3.65	1.22
Domestic Hot Water	19.28	10.87	8.41
Lighting	38.20	38.20	0.00
Receptacle	33.80	33.80	0.00
Process	0.61	0.61	0.00
TOTALS:	**203.78**	**170.00**	**33.78**

Step 2 PERCENT BELOW TITLE 24

Adjusted TDV Energy Use
(Excludes Process Energy)

Standard Design		Proposed Design		Margin
203.17	-	169.38	=	33.78

Margin		Standard Design		% Below Title 24*
33.78	/	203.17	=	**16.6%**

* % Below Title 24 is limited to a maximum of 25% in the incentive rate calculation.

Incentive Eligibility

	Yes	No
Owner Incentive (>=10%):	X	

Conditioned Floor Area = 191,893 **sq. ft.**

Step 3 ANNUAL SITE ENERGY USE

	Standard	Proposed	Margin
Peak Demand (kW)	474.8	386.1	88.7

The values shown here are based upon the results of an EnergyPro Noncompliance energy analysis that incorporates building operating profile information supplied by the user.

ENERGY COMPONENT	Standard		Proposed		Margin	
	Electricity (kWh)	Natural Gas (therms)	Electricity (kWh)	Natural Gas (therms)	Electricity (kWh)	Natural Gas (therms)
Space Heating	222,940	4,075	9,395	0	213,545	4,075
Space Cooling	687,765	0	412,913	0	274,852	0
Indoor Fans	311,902	0	366,613	0	-54,711	0
Heat Rejection	0	0	0	0	0	0
Pumps	64,115	0	27,860	0	36,256	0
Domestic Hot Water	0	35,750	0	26,378	0	9,372
Lighting	152,887	0	150,979	0	1,908	0
Receptacle	246,087	0	246,087	0	0	0
Process	6,297	0	6,297	0	0	0
TOTALS:	1,691,994	39,825	1,220,145	26,378	471,849	13,447

SAVINGS BY DESIGN

UTILITY INCENTIVE WORKSHEET UTIL-DT

PROJECT NAME	DATE
High Rise Res	

Step 1 ANNUAL TDV ENERGY USE (kBtu/sqft-yr)

ENERGY COMPONENT	Standard	Proposed	Margin
Space Heating	1.64	0.76	0.87
Space Cooling	35.28	43.75	-8.46
Indoor Fans	33.50	38.35	-4.85
Heat Rejection	36.59	0.00	36.59
Pumps	4.87	3.65	1.22
Domestic Hot Water	19.28	10.87	8.41
Lighting	38.20	38.20	0.00
Receptacle	33.80	33.80	0.00
Process	0.61	0.61	0.00
TOTALS:	**203.78**	**170.00**	**33.78**

Step 2 PERCENT BELOW TITLE 24

Adjusted TDV Energy Use
(Excludes Process Energy)

Standard Design		Proposed Design		Margin
203.17	-	169.38	=	33.78

Margin		Standard Design		% Below Title 24*
33.78	/	203.17	=	**16.6%**

* % Below Title 24 is limited to a maximum of 25% in the incentive rate calculation.

Incentive Eligibility	Yes	No
Design Team Incentive (>=15%):	X	

Conditioned Floor Area = 191,893 **sq. ft.**

Step 3 ANNUAL SITE ENERGY USE

	Standard	Proposed	Margin
Peak Demand (kW)	474.8	386.1	88.7

The values shown here are based upon the results of an EnergyPro Noncompliance energy analysis that incorporates building operating profile information supplied by the user.

ENERGY COMPONENT	Standard		Proposed		Margin	
	Electricity (kWh)	Natural Gas (therms)	Electricity (kWh)	Natural Gas (therms)	Electricity (kWh)	Natural Gas (therms)
Space Heating	222,940	4,075	9,395	0	213,545	4,075
Space Cooling	687,765	0	412,913	0	274,852	0
Indoor Fans	311,902	0	366,613	0	-54,711	0
Heat Rejection	0	0	0	0	0	0
Pumps	64,115	0	27,860	0	36,256	0
Domestic Hot Water	0	35,750	0	26,378	0	9,372
Lighting	152,887	0	150,979	0	1,908	0
Receptacle	246,087	0	246,087	0	0	0
Process	6,297	0	6,297	0	0	0
TOTALS:	1,691,994	39,825	1,220,145	26,378	471,849	13,447

ENERGY USE AND DEMAND SUMMARY — UTIL-2

PROJECT NAME	DATE
High Rise Res	
PROJECT ADDRESS	Application #
PRINCIPAL DESIGNER / **TELEPHONE**	
DOCUMENTATION AUTHOR / **TELEPHONE**	Checked by/Date

	Energy Use (kWh)				Energy Demand (kW)				
	Total	On Peak	Partial Peak	Off Peak	Maximum	On Peak	Partial Peak	Off Peak	Load Factor
Jan	77,640	0	8,221	69,419	195	0	132	366	53%
Feb	72,432	0	8,308	64,124	201	0	149	391	54%
Mar	81,347	0	10,416	70,932	215	0	169	408	51%
Apr	89,010	0	13,169	75,842	265	0	229	517	47%
May	105,003	0	13,868	91,135	276	0	228	541	51%
Jun	121,459	18,513	27,940	75,006	302	274	302	297	50%
Jul	143,860	17,893	27,989	97,977	377	347	377	363	48%
Aug	142,545	16,586	27,488	98,471	386	346	347	386	40%
Sep	129,231	17,156	26,105	85,970	373	359	365	373	47%
Oct	105,214	14,306	20,759	70,148	351	319	351	322	58%
Nov	77,246	0	9,387	67,860	227	0	195	445	**36%**
Dec	75,120	0	8,378	66,741	174	0	133	339	
Year	**1,220,107**	**84,454**	**202,028**	**933,626**	**386**	**359**	**377**	**386**	

191,893

9

6.4

141.7 sqft

Baltimore Aircoil FXT-LQ661

30.0

	Energy Use	Energy Demand
	therms	kBtu/hr
Jan	441	152
Feb	398	152
Mar	441	152
Apr	426	152
May	441	152
Jun	426	152
Jul	441	152
Aug	441	152
Sep	426	152
Oct	441	152
Nov	426	152
Dec	441	152
Year	**5,189**	**152**

Building Occupancy Type:	
Building Conditioned Floor Area:	
Climate Zone:	
Annual Electrical Consumption:	kWh/sqft-yr
Annual Source Energy Consumption:	kBtu/sqft-yr

Description:			
Size:	HP	**Start Run Code:**	

The values shown here are based upon the results of an EnergyPro Noncompliance energy analysis that incorporates building operating profile information supplied by the user.

SUSTAINABLE COMMUNITIES PROGRAM

INCENTIVE WORKSHEET SCP-1

PROJECT NAME	DATE
High Rise Res	

Step 1 ANNUAL TDV ENERGY USE (kBtu/sqft-yr)

ENERGY COMPONENT	Standard	Proposed	Margin
Space Heating	1.64	0.76	0.87
Space Cooling	35.28	43.75	-8.46
Indoor Fans	33.50	38.35	-4.85
Heat Rejection	36.59	0.00	36.59
Pumps	4.87	3.65	1.22
Domestic Hot Water	19.28	10.87	8.41
Lighting	38.20	38.20	0.00
Receptacle	33.80	33.80	0.00
Process	0.61	0.61	0.00
TOTALS:	**203.78**	**170.00**	**33.78**

Step 2 PERCENT BELOW TITLE 24

Adjusted TDV Energy Use
(Excludes Process Energy)

Standard Design		Proposed Design		Margin
203.17	-	169.38	=	33.78

Margin		Standard Design		% Below Title 24*
33.78	/	203.17	=	**16.6%**

* % Below Title 24 is limited to a maximum of 25% in the incentive rate calculation.

Incentive Eligibility	Yes	No
Owner Incentive (>=10%):	X	

Conditioned Floor Area = 191,893 **sq. ft.**

Step 3 ANNUAL SITE ENERGY USE

	Standard	Proposed	Margin
Peak Demand (kW)	474.8	386.1	88.7

The values shown here are based upon the results of an EnergyPro Noncompliance energy analysis that incorporates building operating profile information supplied by the user.

ENERGY COMPONENT	Standard		Proposed		Margin	
	Electricity (kWh)	Natural Gas (therms)	Electricity (kWh)	Natural Gas (therms)	Electricity (kWh)	Natural Gas (therms)
Space Heating	222,940	4,075	9,395	0	213,545	4,075
Space Cooling	687,765	0	412,913	0	274,852	0
Indoor Fans	311,902	0	366,613	0	-54,711	0
Heat Rejection	0	0	0	0	0	0
Pumps	64,115	0	27,860	0	36,256	0
Domestic Hot Water	0	35,750	0	26,378	0	9,372
Lighting	152,887	0	150,979	0	1,908	0
Receptacle	246,087	0	246,087	0	0	0
Process	6,297	0	6,297	0	0	0
TOTALS:	1,691,994	39,825	1,220,145	26,378	471,849	13,447

SUSTAINABLE COMMUNITIES PROGRAM

UTILITY INCENTIVE WORKSHEET SCP-2

PROJECT NAME	DATE
High Rise Res	

Step 1 ANNUAL TDV ENERGY USE (kBtu/sqft-yr)

ENERGY COMPONENT	Standard	Proposed	Margin
Space Heating	1.64	0.76	0.87
Space Cooling	35.28	43.75	-8.46
Indoor Fans	33.50	38.35	-4.85
Heat Rejection	36.59	0.00	36.59
Pumps	4.87	3.65	1.22
Domestic Hot Water	19.28	10.87	8.41
Lighting	38.20	38.20	0.00
Receptacle	33.80	33.80	0.00
Process	0.61	0.61	0.00
TOTALS:	**203.78**	**170.00**	**33.78**

Step 2 PERCENT BELOW TITLE 24

Adjusted TDV Energy Use
(Excludes Process Energy)

Standard Design		Proposed Design		Margin
203.17	-	169.38	=	33.78

Margin		Standard Design		% Below Title 24*
33.78	/	203.17	=	**16.6%**

* % Below Title 24 is limited to a maximum of 25% in the incentive rate calculation.

Incentive Eligibility	Yes	No
Design Team Incentive (>=15%):	X	

Conditioned Floor Area = 191,893 **sq. ft.**

Step 3 ANNUAL SITE ENERGY USE

	Standard	Proposed	Margin
Peak Demand (kW)	474.8	386.1	88.7

The values shown here are based upon the results of an EnergyPro Noncompliance energy analysis that incorporates building operating profile information supplied by the user.

ENERGY COMPONENT	Standard		Proposed		Margin	
	Electricity (kWh)	Natural Gas (therms)	Electricity (kWh)	Natural Gas (therms)	Electricity (kWh)	Natural Gas (therms)
Space Heating	222,940	4,075	9,395	0	213,545	4,075
Space Cooling	687,765	0	412,913	0	274,852	0
Indoor Fans	311,902	0	366,613	0	-54,711	0
Heat Rejection	0	0	0	0	0	0
Pumps	64,115	0	27,860	0	36,256	0
Domestic Hot Water	0	35,750	0	26,378	0	9,372
Lighting	152,887	0	150,979	0	1,908	0
Receptacle	246,087	0	246,087	0	0	0
Process	6,297	0	6,297	0	0	0
TOTALS:	1,691,994	39,825	1,220,145	26,378	471,849	13,447

ENERGY USE AND COST SUMMARY — ECON-1

PROJECT NAME	DATE
High Rise Res	

Rate: LADWP A-3A — **Fuel Type:** Electricity

	STANDARD			PROPOSED			MARGIN		
	Energy Use (kWh)	Peak Demand (kW)	Cost ($)	Energy Use (kWh)	Peak Demand (kW)	Cost ($)	Energy Use (kWh)	Peak Demand (kW)	Cost ($)
Jan	121,869	264	8,773	77,640	195	5,974	44,229	69	2,799
Feb	107,940	248	8,509	72,432	201	5,951	35,508	47	2,558
Mar	118,287	262	9,098	81,347	215	6,627	36,940	47	2,471
Apr	119,133	338	10,356	89,010	265	7,894	30,123	73	2,462
May	129,939	345	10,818	105,003	276	8,666	24,936	69	2,152
Jun	152,302	379	13,380	121,459	302	10,407	30,843	77	2,973
Jul	192,260	474	16,533	143,860	377	12,523	48,400	97	4,010
Aug	199,153	475	16,878	142,545	386	12,344	56,608	89	4,534
Sep	171,950	473	15,660	129,231	373	11,881	42,719	101	3,779
Oct	137,425	436	13,352	105,214	351	10,226	32,211	86	3,126
Nov	117,398	258	9,185	77,246	227	6,731	40,151	31	2,454
Dec	124,303	274	9,074	75,120	174	5,801	49,183	100	3,273
Year	**1,691,958**	**475**	**$ 141,616**	**1,220,107**	**386**	**$ 105,026**	**471,851**	**89**	**$ 36,590**

Rate: SoCal Gas GN-10 — **Fuel Type:** Natural Gas

	STANDARD			PROPOSED			MARGIN		
	Energy Use (therms)	Peak Demand (kBtu/hr)	Cost ($)	Energy Use (therms)	Peak Demand (kBtu/hr)	Cost ($)	Energy Use (therms)	Peak Demand (kBtu/hr)	Cost ($)
Jan	1,642	1,444	2,151	441	152	622	1,201	1,291	1,529
Feb	1,109	1,291	1,473	398	152	568	711	1,138	905
Mar	1,036	1,222	1,379	441	152	622	595	1,070	757
Apr	680	993	899	426	152	576	254	840	323
May	597	207	794	441	152	594	157	54	200
Jun	578	207	769	426	152	576	152	54	193
Jul	597	207	794	441	152	594	157	54	200
Aug	597	207	794	441	152	594	157	54	200
Sep	578	207	769	426	152	576	152	54	193
Oct	609	592	809	441	152	594	169	440	215
Nov	1,165	1,141	1,515	426	152	576	738	988	939
Dec	1,919	1,543	2,503	441	152	622	1,478	1,390	1,881
Year	**11,108**	**1,543**	**$ 14,648**	**5,189**	**152**	**$ 7,115**	**5,919**	**1,390**	**$ 7,533**

Annual Totals	Energy	Demand	Cost	Cost/sqft	Virtual Rate
Electricity	1,220,107 kWh	386 kW	$ 105,026	$ 0.54 /sqft	$ 0.09 /kWh
Natural Gas	5,189 therms	152 kBtu/hr	$ 7,115	$ 0.04 /sqft	$ 1.37 /therm
		Total	$ 112,141	$ 0.58 /sqft	

The values shown here are based upon the results of an EnergyPro Noncompliance energy analysis that incorporates building operating profile information supplied by the user.

PERFORMANCE CERTIFICATE OF COMPLIANCE Part 1 of 3 PERF-1

PROJECT NAME	DATE
Mid Rise Res	
PROJECT ADDRESS Los Angeles	Building Permit #
PRINCIPAL DESIGNER - ENVELOPE / **TELEPHONE**	
DOCUMENTATION AUTHOR / **TELEPHONE**	Checked by/Date Enforcement Agency Use

GENERAL INFORMATION

DATE OF PLANS	BUILDING CONDITIONED FLOOR AREA	CLIMATE ZONE
	57,135 Sq.Ft.	9

BUILDING TYPE	[X]	**NONRESIDENTIAL**	[X]	**HIGH RISE RESIDENTIAL**	[ ]	**HOTEL/MOTEL GUEST ROOM**
PHASE OF CONSTRUCTION	[X]	**NEW CONSTRUCTION**	[ ]	**ADDITION**	[ ]	**EXISTING + ADDITION/ALTERATION**

STATEMENT OF COMPLIANCE

This Certificate of Compliance lists the building features and performance specifications needed to comply with Title 24, Parts 1 and 6 of the California Code of Regulations. This certificate applies only to a Building using the performance compliance approach.

The documentation preparer hereby certifies that the documentation is accurate and complete.

DOCUMENTATION AUTHOR	SIGNATURE	DATE

The Principal Designer hereby certifys that the proposed building design represented in this set of construction documents is consistent with the other compliance forms and worksheets, with the specifications, and with any other calculations submitted with this permit application. The proposed building as designed meets the energy efficiency requirements contained in sections 110, 116, through 118, and 140, 142, 143 or 149 of Title 24, Part 6.

ENV.	LTG.	MECH.	
[ ]	[ ]	[ ]	1. I hereby affirm that I am eligible under the provisions of Division 3 of the Business and Professions Code to sign this document as the person responsible for its preparation; and that I am licensed in the State of California as a civil engineer, mechanical engineer, electrical engineer, or I am a licensed architect.
[ ]	[ ]	[ ]	2. I affirm that I am eligible under the provisions of Division 3 of the Business and Professions Code Section 5537.2 or 6737.3 to sign this document as the person responsible for its preparation; and that I am a licensed contractor performing this work.
[ ]	[ ]	[ ]	3. I affirm that I am eligible under Division 3 of the Business and Professions Code to sign this document because it pertains to a structure or type of work described as exempt pursuant to Business and Professions Code Sections 5537, 5538, and 6737.1. (These sections of the Business and Professions Code are printed in full in the Nonresidential Manual.)

ENVELOPE COMPLIANCE

Indicate location on plans of Note Block for Mandatory Measures	
Required Forms	

PRINCIPAL ENVELOPE DESIGNER - NAME	SIGNATURE	LIC. NO.	DATE

LIGHTING COMPLIANCE

Indicate location on plans of Note Block for Mandatory Measures	
Required Forms	

PRINCIPAL LIGHTING DESIGNER - NAME	SIGNATURE	LIC. NO.	DATE

MECHANICAL COMPLIANCE

Indicate location on plans of Note Block for Mandatory Measures	
Required Forms	

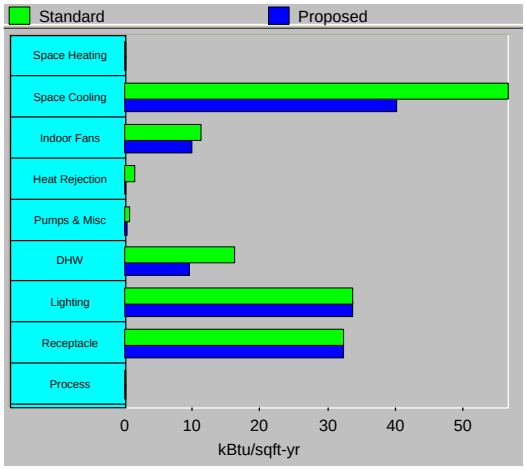
PRINCIPAL MECHANICAL DESIGNER - NAME	SIGNATURE	LIC. NO.	DATE

PERFORMANCE CERTIFICATE OF COMPLIANCE Part 2 of 3 PERF-1

PROJECT NAME	DATE
Mid Rise Res	

ANNUAL TDV ENERGY USE SUMMARY (kBtu/sqft-yr)

ENERGY COMPONENT	Standard Design	Proposed Design	Compliance Margin
Space Heating	0.15	0.09	0.06
Space Cooling	56.34	39.92	16.42
Indoor Fans	11.26	9.78	1.47
Heat Rejection	1.38	0.00	1.38
Pumps & Misc.	0.58	0.29	0.29
Domestic Hot Water	16.20	9.54	6.66
Lighting	33.50	33.50	0.00
Receptacle	32.24	32.24	0.00
Process	0.00	0.00	0.00
TOTALS:	151.64	125.36	26.28



Percent better than Standard: 17.3% (17.3% excluding process)

BUILDING COMPLIES

GENERAL INFORMATION

Building Orientation	(N) 0 deg	Conditioned Floor Area	57,135	sqft.
Number of Stories	6	Unconditioned Floor Area	2,251	sqft.
Number of Systems	53	Conditioned Footprint Area	1,046	sqft.
Number of Zones	32	Fuel Type	Natural Gas	

	Orientation	Gross Area		Glazing Area		Glazing Ratio
Front Elevation	(N)	4,192	sqft.	1,168	sqft.	27.9%
Left Elevation	(E)	9,199	sqft.	2,410	sqft.	26.2%
Rear Elevation	(S)	5,225	sqft.	1,409	sqft.	27.0%
Right Elevation	(W)	10,530	sqft.	2,995	sqft.	28.4%
Total		29,146	sqft.	7,982	sqft.	27.4%
Roof		12,477	sqft.	0	sqft.	0.0%

	Standard		Proposed	
Lighting Power Density	1.500	W/sqft.	1.500	W/sqft.
Prescriptive Env. Heat Loss	7,131	Btu/h	4,707	Btu/h
Prescriptive Env. Heat Gain	736,806	Btu/h-F	459,918	Btu/h-F

Remarks:

Run Initiation Time: 08/12/09 14:56:21 Run Code: 1250114181

PERFORMANCE CERTIFICATE OF COMPLIANCE Part 3 of 3 PERF-1

PROJECT NAME	DATE
Mid Rise Res	

ZONE INFORMATION

System Name	Zone Name	Occupancy Type	Floor Area (sqft.)	Inst. LPD (W/sf)[1]	Ctrl. Credits (W/sf)[2]	Allowed LPD Area (W/sf)[3]	Allowed LPD Tailored (W/sf)[4]	Proc. Loads (W/sf)
1 - 6th Flrs Unit P.1	Unit X	High-Rise Residential Living	2,215	*0.500				
2 - 6th Flr Unit V	Unit R1-S1	High-Rise Residential Living	1,700	*0.500				
3 - 6th Flrs Unit U	Unit Q	High-Rise Residential Living	2,380	*0.500				
4 - 6th Flrs Unit S	Unit S	High-Rise Residential Living	2,320	*0.500				
5 - 6th Flrs Unit R	Unit V-W	High-Rise Residential Living	1,750	*0.500				
6 - 6th Flrs Unit Q	Unit Q	High-Rise Residential Living	2,112	*0.500				
7 - 2-5th Floors Unit F	Unit F	High-Rise Residential Living	4,588	*0.500				
8 - 2-5th Flrs Units B-E	Units B-E	High-Rise Residential Living	11,376	*0.500				
9 - 2-5th Floors Unit A	Unit A	High-Rise Residential Living	4,724	*0.500				
10 - 2-5th Floors Unit K	Unit K	High-Rise Residential Living	5,124	*0.500				
11 - 2-5th Flrs Units H-J	Units H-J	High-Rise Residential Living	13,040	*0.500				
12 - 2-5th Floors Unit G	Unit G	High-Rise Residential Living	4,760	*0.500				
14 - Lobby and Other	Lobby	Lobby, Main Entry	1,046	*1.500				
	Ldng Berth, Rcvng, Hall	Comp Bldg All Other	2,251	*0.600				

Notes: 1. See LTG-2-C (items marked with asterisk, see LTG-2 -C by others) 2. See LTG-4-C 3. See LTG-5-C (by others) 4. See LTG-6-C

Items above require special documentation

EXCEPTIONAL CONDITIONS COMPLIANCE CHECKLIST

The local enforcement agency should pay special attention to the items specified in this checklist. These items require special written justification and documentation, and special verification to be used with the performance approach. The local enforcement agency determines the adequacy of the justification, and may reject a building or design that otherwise complies based on the adequacy of the special justification and documentation submitted.

Building has 50 Dwelling Units. This has been used in the Highrise Residential DHW calcs.
The Hot Water Pump includes a Variable Speed Drive.
The HVAC System "1 - 6th Flrs Unit P.1" incorporates HERS verified Duct Leakage. Target leakage is calculated and documented on the MECH-5-A.
The HVAC System "1 - 6th Flrs Unit P.1" includes credit for verified adequate airflow. A certified HERS rater must diagnostically measure the airflow.
The HVAC System "1 - 6th Flrs Unit P.1" incorporates a HERS verified Refrigerant Charge test or a HERS verified Thermostatic Expansion Valve.
The HVAC System "2 - 6th Flr Unit V" incorporates HERS verified Duct Leakage. Target leakage is calculated and documented on the MECH-5-A.
The HVAC System "3 - 6th Flrs Unit U" incorporates HERS verified Duct Leakage. Target leakage is calculated and documented on the MECH-5-A.
The HVAC System "4 - 6th Flrs Unit S" incorporates HERS verified Duct Leakage. Target leakage is calculated and documented on the MECH-5-A.
The HVAC System "5 - 6th Flrs Unit R" incorporates HERS verified Duct Leakage. Target leakage is calculated and documented on the MECH-5-A.
The HVAC System "6 - 6th Flrs Unit Q" incorporates HERS verified Duct Leakage. Target leakage is calculated and documented on the MECH-5-A.
The HVAC System "7 - 2-5th Floors Unit F" incorporates HERS verified Duct Leakage. Target leakage is calculated and documented on the MECH-5-A.
The HVAC System "8 - 2-5th Flrs Units B-E" incorporates HERS verified Duct Leakage. Target leakage is calculated and documented on the MECH-5-A.
The HVAC System "9 - 2-5th Floors Unit A" incorporates HERS verified Duct Leakage. Target leakage is calculated and documented on the MECH-5-A.

The exceptional features listed in this performance approach application have specifically been reviewed. Adequate written justification and documentation for their use have been provided by the applicant.

Authorized Signature or Stamp _____

PERFORMANCE CERTIFICATE OF COMPLIANCE Part 3 of 3 PERF-1

PROJECT NAME	DATE
Mid Rise Res	

ZONE INFORMATION

System Name	Zone Name	Occupancy Type	Floor Area (sqft.)	Inst. LPD (W/sf)[1]	Ctrl. Credits (W/sf)[2]	Allowed LPD Area (W/sf)[3]	Allowed LPD Tailored (W/sf)[4]	Proc. Loads (W/sf)

Notes: 1. See LTG-2-C (items marked with asterisk, see LTG-2 -C by others) 2. See LTG-4-C 3. See LTG-5-C (by others) 4. See LTG-6-C

Items above require special documentation

EXCEPTIONAL CONDITIONS COMPLIANCE CHECKLIST

The local enforcement agency should pay special attention to the items specified in this checklist. These items require special written justification and documentation, and special verification to be used with the performance approach. The local enforcement agency determines the adequacy of the justification, and may reject a building or design that otherwise complies based on the adequacy of the special justification and documentation submitted.

The HVAC System "10 - 2-5th Floors Unit K" incorporates HERS verified Duct Leakage. Target leakage is calculated and documented on the MECH-5-A.
The HVAC System "11 - 2-5th Flrs Units H-J" incorporates HERS verified Duct Leakage. Target leakage is calculated and documented on the MECH-5-A.
The HVAC System "12 - 2-5th Floors Unit G" incorporates HERS verified Duct Leakage. Target leakage is calculated and documented on the MECH-5-A.
The HVAC System "14 - Lobby and Other" incorporates HERS verified Duct Leakage. Target leakage is calculated and documented on the MECH-5-A.

The exceptional features listed in this performance approach application have specifically been reviewed. Adequate written justification and documentation for their use have been provided by the applicant.

Authorized Signature or Stamp _____

Run Initiation Time: 08/12/09 14:56:21 Run Code: 1250114181

CERTIFICATE OF COMPLIANCE ENV-1-C

PROJECT NAME Mid Rise Res **DATE**

OPAQUE SURFACES

#	Surface Type	Area	U-Fac.	Insulation Cav.	Insulation Cont.	Act. Azm.	Tilt	Cond.* Status	Joint Appendix IV Reference	Location / Comments
1	Roof	2,215	0.051	R-19	R-0.0	0	0	New	02-A5	Unit X
2	Wall	301	0.065	R-21	R-1.0	45	90	New	09-A6	Unit X
3	Wall	385	0.065	R-21	R-1.0	135	90	New	09-A6	Unit X
4	Roof	1,700	0.051	R-19	R-0.0	0	0	New	02-A5	Unit R1-S1
5	Wall	385	0.065	R-21	R-1.0	135	90	New	09-A6	Unit R1-S1
6	Roof	2,380	0.051	R-19	R-0.0	0	0	New	02-A5	Unit Q
7	Wall	397	0.065	R-21	R-1.0	135	90	New	09-A6	Unit Q
8	Wall	280	0.065	R-21	R-1.0	225	90	New	09-A6	Unit Q
9	Wall	293	0.065	R-21	R-1.0	315	90	New	09-A6	Unit Q
10	Roof	2,320	0.051	R-19	R-0.0	0	0	New	02-A5	Unit S
11	Wall	80	0.065	R-21	R-1.0	135	90	New	09-A6	Unit S
12	Wall	249	0.065	R-21	R-1.0	225	90	New	09-A6	Unit S
13	Wall	448	0.065	R-21	R-1.0	315	90	New	09-A6	Unit S
14	Roof	1,750	0.051	R-19	R-0.0	0	0	New	02-A5	Unit V-W
15	Wall	350	0.065	R-21	R-1.0	315	90	New	09-A6	Unit V-W
16	Roof	2,112	0.051	R-19	R-0.0	0	0	New	02-A5	Unit Q
17	Wall	231	0.065	R-21	R-1.0	45	90	New	09-A6	Unit Q
18	Wall	336	0.065	R-21	R-1.0	315	90	New	09-A6	Unit Q
19	Wall	1,262	0.065	R-21	R-1.0	45	90	New	09-A6	Unit F
20	Wall	1,056	0.065	R-21	R-1.0	135	90	New	09-A6	Unit F

* N, E, A, R (New, Existing, Altered, Removed)

FENESTRATION SURFACES

☐ More than or equal to 10,000 sq.ft. of site-built fenestration area must include a label certificate either issued by NFRC or provide a CEC Default Label Certificate using the default U-factors from Standards Table 116-A and B. Certificate shall be filed in the contractor's project office during construction and in the building manager's office after construction

#	Type	Area	U-Fac.[1]	SHGC[2]	Act. Azm.	Cond. Stat.	Glazing Type	Location/ Comments
1	Window Front (NE)	129	0.300 NFRC	0.30 NFRC	45	New	High Performance	Unit X
2	Window Left (SE)	165	0.300 NFRC	0.30 NFRC	135	New	High Performance	Unit X
3	Window Left (SE)	165	0.300 NFRC	0.30 NFRC	135	New	High Performance	Unit R1-S1
4	Window Left (SE)	120	0.300 NFRC	0.30 NFRC	135	New	High Performance	Unit Q
5	Window Rear (SW)	90	0.300 NFRC	0.30 NFRC	225	New	High Performance	Unit Q
6	Window Rear (SW)	20	0.300 NFRC	0.30 NFRC	225	New	High Performance	Unit Q
7	Window Right (NW)	81	0.300 NFRC	0.30 NFRC	315	New	High Performance	Unit Q
8	Window Rear (SW)	90	0.300 NFRC	0.30 NFRC	225	New	High Performance	Unit S
9	Window Rear (SW)	41	0.300 NFRC	0.30 NFRC	225	New	High Performance	Unit S
10	Window Right (NW)	192	0.300 NFRC	0.30 NFRC	315	New	High Performance	Unit S
11	Window Right (NW)	150	0.300 NFRC	0.30 NFRC	315	New	High Performance	Unit V-W
12	Window Front (NE)	99	0.300 NFRC	0.30 NFRC	45	New	High Performance	Unit Q
13	Window Right (NW)	144	0.300 NFRC	0.30 NFRC	315	New	High Performance	Unit Q

(1) U-factor Type: 116-A Default Table from Standards, Table NI-1 Default Table from the ACM Manual Appendix, NFRC Labeled value.
(2) SHGC Type: 116-B Default Table from Standards, COG Center of Glass, NFRC Labeled Value

EXTERIOR SHADING

#	Exterior Shade Type	SHGC	Window Hgt.	Window Wd.	Overhang Len.	Overhang Hgt.	Overhang LExt.	Overhang RExt.	Left Fin Dist.	Left Fin Len.	Left Fin Hgt.	Right Fin Dist.	Right Fin Len.	Right Fin Hgt.
1	None	0.76	8.0	48.0	4.0	0.1	4.0	4.0						
2	None	0.76	8.0	52.0	4.0	0.1	4.0	4.0						
3	None	0.76	8.0	84.0	4.0	0.1	4.0	4.0						
4	None	0.76	8.0	40.0	4.0	0.1	4.0	4.0						
5	None	0.76	10.0	24.0	3.0	0.1	0.0	0.0						
6	None	0.76	8.0	79.0	4.0	0.1	4.0	4.0						
7	None	0.76	8.0	27.0	4.0	0.1	4.0	4.0						
8	None	0.76	10.0	24.0	3.0	0.1	0.0	0.0						
9	None	0.76	8.0	79.0	4.0	0.1	4.0	4.0						
10	None	0.76	8.0	27.0	4.0	0.1	4.0	4.0						
11	None	0.76	8.0	97.0	4.0	0.1	4.0	4.0						
12	None	0.76	8.0	33.0	4.0	0.1	4.0	4.0						
13	None	0.76	8.0	48.0	4.0	0.1	4.0	4.0						

MINIMUM SKYLIGHT AREA FOR LARGE ENCLOSED SPACES

☐ **The proposed building is in climate zones 2 through 15 and contains an enclosed space with floor area greater than 25,000 ft2, a ceiling height greater than 15 feet, and an LPD for general lighting of at least 0.5 W/ft2. See Section 143(c). If this box is checked, ENV-4-C must be filled out. when submitting under the Prescriptive Compliance Approach.**

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CERTIFICATE OF COMPLIANCE ENV-1-C

PROJECT NAME Mid Rise Res **DATE**

OPAQUE SURFACES

#	Surface Type	Area	U-Fac.	Insulation Cav.	Insulation Cont.	Act. Azm.	Tilt	Cond.* Status	Joint Appendix IV Reference	Location / Comments
21	Wall	3,104	0.065	R-21	R-1.0	135	90	New	09-A6	Units B-E
22	Wall	308	0.065	R-21	R-1.0	315	90	New	09-A6	Unit A
23	Wall	1,016	0.065	R-21	R-1.0	225	90	New	09-A6	Unit A
24	Wall	1,074	0.065	R-21	R-1.0	135	90	New	09-A6	Unit A
25	Wall	308	0.065	R-21	R-1.0	135	90	New	09-A6	Unit K
26	Wall	1,248	0.065	R-21	R-1.0	225	90	New	09-A6	Unit K
27	Wall	1,262	0.065	R-21	R-1.0	315	90	New	09-A6	Unit K
28	Wall	3,104	0.065	R-21	R-1.0	315	90	New	09-A6	Units H-J
29	Wall	1,230	0.065	R-21	R-1.0	45	90	New	09-A6	Unit G
30	Wall	1,038	0.065	R-21	R-1.0	315	90	New	09-A6	Unit G
31	Wall	1,023	0.224	R-11	R-0.0	225	90	New	11-A2	Lobby
32	Floor	1,046	0.090	R-8	R-0.0	0	180	New	25-A5	Lobby
33	Wall	348	0.224	R-11	R-0.0	315	90	New	11-A2	Lobby
34	Door	48	1.450	None	R-0.0	315	90	New	28-A1	Lobby

* N, E, A, R (New, Existing, Altered, Removed)

FENESTRATION SURFACES

☐ More than or equal to 10,000 sq.ft. of site-built fenestration area must include a label certificate either issued by NFRC or provide a CEC Default Label Certificate using the default U-factors from Standards Table 116-A and B. Certificate shall be filed in the contractor's project office during construction and in the building manager's office after construction

#	Type	Area	U-Fac.[1]	SHGC[2]	Act. Azm.	Cond. Stat.	Glazing Type	Location/ Comments
14	Window Front (NE)	476	0.300 NFRC	0.30 NFRC	45	New	High Performance	Unit F
15	Window Left (SE)	396	0.300 NFRC	0.30 NFRC	135	New	High Performance	Unit F
16	Window Left (SE)	1,164	0.300 NFRC	0.30 NFRC	135	New	High Performance	Units B-E
17	Window Rear (SW)	700	0.300 NFRC	0.30 NFRC	225	New	High Performance	Unit A
18	Window Left (SE)	400	0.300 NFRC	0.30 NFRC	135	New	High Performance	Unit A
19	Window Rear (SW)	468	0.300 NFRC	0.30 NFRC	225	New	High Performance	Unit K
20	Window Right (NW)	476	0.300 NFRC	0.30 NFRC	315	New	High Performance	Unit K
21	Window Right (NW)	1,164	0.300 NFRC	0.30 NFRC	315	New	High Performance	Units H-J
22	Window Front (NE)	464	0.300 NFRC	0.30 NFRC	45	New	High Performance	Unit G
23	Window Right (NW)	392	0.300 NFRC	0.30 NFRC	315	New	High Performance	Unit G
24	Window Right (NW)	396	0.300 NFRC	0.30 NFRC	315	New	High Performance	Lobby

(1) U-factor Type: 116-A Default Table from Standards, Table NI-1 Default Table from the ACM Manual Appendix, NFRC Labeled value.
(2) SHGC Type: 116-B Default Table from Standards, COG Center of Glass, NFRC Labeled Value

EXTERIOR SHADING

#	Exterior Shade Type	SHGC	Window Hgt.	Window Wd.	Overhang Len.	Overhang Hgt.	Overhang LExt.	Overhang RExt.	Left Fin Dist.	Left Fin Len.	Left Fin Hgt.	Right Fin Dist.	Right Fin Len.	Right Fin Hgt.
14	None	0.76	8.0	39.5	4.0	0.1	4.0	4.0						
15	None	0.76	8.0	33.0	4.0	0.1	4.0	4.0						
16	None	0.76	8.0	97.0	4.0	0.1	4.0	4.0						
17	None	0.76	8.0	39.0	4.0	0.1	4.0	4.0						
18	None	0.76	8.0	33.5	0.0	0.0	0.0	0.0						
19	None	0.76	8.0	39.0	4.0	0.1	4.0	4.0						
20	None	0.76	8.0	39.5	0.0	0.0	0.0	0.0						
21	None	0.76	8.0	97.0	4.0	0.1	4.0	4.0						
22	None	0.76	8.0	38.5	4.0	0.1	4.0	4.0						
23	None	0.76	8.0	32.5	4.0	0.1	4.0	4.0						
24	None	0.76	32.0	16.0	10.0	0.1	10.0	10.0						

MINIMUM SKYLIGHT AREA FOR LARGE ENCLOSED SPACES

☐ **The proposed building is in climate zones 2 through 15 and contains an enclosed space with floor area greater than 25,000 ft2, a ceiling height greater than 15 feet, and an LPD for general lighting of at least 0.5 W/ft2. See Section 143(c). If this box is checked, ENV-4-C must be filled out. when submitting under the Prescriptive Compliance Approach.**

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CERTIFICATE OF COMPLIANCE (Part 1 of 3) LTG-1-C

PROJECT NAME	DATE
Mid Rise Res	

INSTALLED INDOOR LIGHTING POWER FOR CONDITIONED AND UNCONDITIONED SPACES

	INSTALLED WATTS
INSTALLED LIGHTING, CONDITIONED SPACES (From LTG-2-C)	1,569
PORTABLE LIGHTING (From LTG-3-C)	0
LIGHTING CONTROL CREDIT, CONDITIONED SPACES (From LTG-4-C)	0
CONDITIONED SPACE ADJUSTED INSTALLED LIGHTING POWER	1,569
INSTALLED LIGHTING, UNCONDITIONED SPACES (From LTG-2-C)	1,351
LIGHTING CONTROL CREDIT, UNCONDITIONED SPACES (From LTG-4-C)	0
UNCONDITIONED SPACE ADJUSTED INSTALLED LIGHTING POWER	1,351

ALLOWED INDOOR LIGHTING POWER FOR CONDITIONED SPACES

- ☐ COMPLETE BUILDING METHOD (From LTG-5-C)
- ☐ AREA CATEGORY METHOD (From LTG-5-C)
- ☐ TAILORED METHOD (From LTG-5-C)

	ALLOWED WATTS
ALLOWED LIGHTING POWER	1,569

ALTERNATE COMPLIANCE

- ☒ PERFORMANCE METHOD
- ☐ COMMMON LIGHTING SYSTEM (From LTG-8-C)

ALLOWED INDOOR LIGHTING POWER FOR UNCONDITIONED SPACES (From LTG-5-C)	1,351

MANDATORY INDOOR AND DAYLIGHTING AUTOMATIC CONTROLS

CONTROL LOCATION (Room #)	CONTROL IDENTIFICATION	CONTROL TYPE (Auto Time Switch, Dimming, etc.)	SPACE CONTROLLED	Check if Daylighting	NOTE TO FIELD

NOTES TO FIELD - For Building Department Use Only

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CERTIFICATE OF COMPLIANCE (Part 3 of 3) LTG-1-C

PROJECT NAME	DATE
Mid Rise Res	

Designer:

This form is to be used by the designer and attached to the plans. Listed below are all the acceptance tests for lighting systems. The designer is required to check the boxes by all acceptance tests that apply and list all equipment that require an acceptance test. If all equipment of a certain type requires a test, list the equipment description and the number of systems to be tested in parentheses. The NJ number designates the Section in the Appendix of the Nonresidential ACM Manual that describes the test. Also indicate the person responsible for performing the tests (i.e. the installing contractor, design professional or an agent selected by the owner). Since this form will be part of the plans, completion of this section will allow the responsible party to budget for the scope of work appropriately.

Building Departments:

Before an occupancy permit is granted for a newly constructed building or space, or a new lighting system system serving a building or space is operated for normal use, all control devices serving the building or space shall be certified as meeting the Acceptance Requirements for Code Compliance. In addition a Certificate of Acceptance, LTG-1-A, Forms shall be submitted to the building department that:

A. Certifies plans, specifications, installation certificates, and operating and maintenance information meet the requirements of §10-103(b) and Title 24 Part 6.

Test Description	Test Performed By:
☐ LTG-2-A: Lighting Control Acceptance Document - Occupancy Sensor Acceptance - Manual Daylight Controls Acceptance - Automatic Time Switch Control Acceptance Equipment requiring acceptance testing _____	
☐ LTG-3-A: Automatic Daylighting Controls Acceptance Document Equipment requiring acceptance testing _____	

CERTIFICATE OF COMPLIANCE MECH-1-C

PROJECT NAME	DATE
Mid Rise Res	

Designer:

This form is to be used by the designer and attached to the plans. Listed below are all the acceptance tests for mechanical systems. The designer is required to check the boxes by all acceptance tests that apply and list all equipment that requires an acceptance test. If all equipment of a certain type requires a test, list the equipment description and the number of systems to be tested in parentheses. The NJ number designates the Section in the Appendix of the Nonresidential ACM Manual that describes the test. Also indicate the person responsible for performing the tests (i.e. the installing contractor, design professional or an agent selected by the owner). Since this form will be part of the plans, completion of this section will allow the responsible party to budget for the scope of work appropriately.

Building Departments:

SYSTEM ACCEPTANCE. Before an occupancy permit is granted for a newly constructed building or space, or a new space-conditioning system serving a building or space is operated for normal use, all control devices serving the building or space shall be certified as meeting the Acceptance Requirements for Code Compliance.

In addition a Certificate of Acceptance, MECH-1-A Form shall be submitted to the building department that certifies plans, specifications, installation certificates, and operating and maintenance information meet the requirements of Section 10-103(b) and Title 24 Part 6.

STATEMENT OF COMPLIANCE

☐ MECH-2-A: Ventilation System Acceptance Document
-Variable Air Volume Systems Outdoor Air Acceptance
-Constant Air Volume Systems Outdoor Air Acceptance
Equipment requiring acceptance testing _____

Test required on all New systems both New Construction and Retrofit.

☐ MECH-3-A: Packaged HVAC Systems Acceptance Document
Equipment requiring acceptance testing _____

Test required on all New systems both New Construction and Retrofit.

☐ MECH-4-A: Air-Side Economizer Acceptance Document
Equipment requiring acceptance testing _____

Test required on all New systems both New Construction and Retrofit. Units with economizers that are installed at the factory and certified with the commission do not require equipment testing but do require construction inspection.

☐ MECH-5-A: Air Distribution Acceptance Document
Equipment requiring acceptance testing _____

This test required If the unit serves 5,000 ft2 of space or less and 25% or more of the ducts are in nonconditioned or semiconditioned space like an attic. New systems that meet the above requirements. Retrofit systems that meet the above requirements and either extend ducts, replace ducts or replace the packaged unit.

☐ MECH-6-A: Demand Control Ventilation Acceptance Document
Equipment requiring acceptance testing _____

All new DCV controls installed on new or existing packaged systems must be tested.

☐ MECH-7-A: Supply Fan Variable Flow Control Acceptance Document
Equipment requiring acceptance testing _____

All new VAV fan volume controls installed on new or existing systems must be tested

☐ MECH-8-A: -Hydronic System Control Acceptance Document
-Variable Flow Controls *Applies to chilled and hot water systems.*
-Automatic Isolation Controls *Applies to new boilers and chillers and the primary pumps are connected to a common header.*
-Supply Water Temperature Reset Controls
Applies to new constant flow chilled and hot water systems that have a design capacity greater than or equal to 500,000 Btu/hr.
-Water-loop Heat Pump Controls
Applies to all new waterloop heat pump systems where the combined loop pumps are greater than 5 hp.
-Variable Frequency Controls *Applies to all new distribution pumps on new variable flow chilled, hydronic heat pump or condenser water systems where the pumps motors are greater than 5 hp.*
Equipment requiring acceptance testing _____

INDOOR LIGHTING SCHEDULE (Part 1 of 2) LTG-2-C

PROJECT NAME	DATE
Mid Rise Res	

INSTALLED LIGHTING POWER FOR CONDITIONED SPACES

Luminaire		Lamps/Ballasts				Installed Watts				
		C	D	E	F	G	H		I	J
Name	Type Description	Lamp Type	Number of Lamps per Luminaire	Watts per Lamp	Number of Ballast per Luminaire	Watts per Luminaire	CEC Default? Yes	CEC Default? No	Number of Luminaires	Installed Watts (G x I)
	Standard Allowance: 1046 sqft at 1.500 w/sf									1,569

PAGE TOTAL	1,569
BUILDING TOTAL (sum of all pages)	1,569
PORTABLE LIGHTING (From LTG-3-C)	0
CONTROL CREDIT (From LTG-4-C)	0
ADJUSTED ACTUAL WATTS	1,569

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INDOOR LIGHTING SCHEDULE (Part 2 of 2) LTG-2-C

PROJECT NAME	DATE
Mid Rise Res	

INSTALLED LIGHTING POWER FOR UNCONDITIONED SPACES

Luminaire		Lamps/Ballasts				Installed Watts				
		C	D	E	F	G	H		I	J
Name	Type Description	Lamp Type	Number of Lamps per Luminaire	Watts per Lamp	Number of Ballast per Luminaire	Watts per Luminaire	CEC Default? Yes	CEC Default? No	Number of Luminaires	Installed Watts (G x I)
	Standard Allowance: 2251 sqft at 0.600 w/sf									1,351

PAGE TOTAL	1,351
BUILDING TOTAL (sum of all pages)	1,351
CONTROL CREDIT (From LTG-4-C)	0
ADJUSTED ACTUAL WATTS	1,351

INDOOR LIGHTING POWER ALLOWANCE LTG-5-C

PROJECT NAME	DATE
Mid Rise Res	

ALLOWED LIGHTING POWER (Choose One Method)

COMPLETE BUILDING METHOD - CONDITIONED SPACES

BUILDING CATEGORY (From Section 146 Table 146-B)	WATTS PER SF	COMPLETE BLDG. AREA	ALLOWED WATTS

AREA CATEGORY METHOD - CONDITIONED SPACES

AREA CATEGORY (From Section 146 Table 146-C)	WATTS PER SF	AREA (SF)	ALLOWED WATTS
PAGE TOTAL			
BUILDING TOTAL			
		AREA	WATTS

TAILORED METHOD - CONDITIONED SPACES

TOTAL ALLOWED WATTS (From LTG-6-C or from computer run.)	

UNCONDITIONED SPACES

Complete Building and Area Catagory Methods Category (From Section 146 Table 146-B&C)	WATTS PER SF	AREA (SF)	ALLOWED WATTS
Relocatable Public School	1.20	2,251	2,701
PAGE TOTAL		2,251	2,701
BUILDING TOTAL		2,251	2,701
		AREA	WATTS

TAILORED METHOD - UNCONDITIONED SPACES

TOTAL UNCONDITIONED SPACES ALLOWED WATTS (From LTG-5-C and LTG-6-C)	

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AIR SYSTEM REQUIREMENTS

Part 1 of 2 **MECH-2-C**

PROJECT NAME	DATE
Mid Rise Res	

SYSTEM FEATURES

		AIR SYSTEMS, Central or Single Zone		
ITEM OR SYSTEM TAG(S)		1 - 6th Flrs Unit P.1	2 - 6th Flr Unit V	3 - 6th Flrs Unit U
Number of Systems		1	1	1
MANDATORY MEASURES	**T-24 Section**	**Reference on Plans or Specification** [1]		
Heating Equipment Efficiency	112(a)	n/a	n/a	n/a
Cooling Equipment Efficiency	112(a)	13.0 SEER / 11.0 EER	13.0 SEER / 11.0 EER	13.0 SEER / 11.0 EER
Heat Pump Thermostat	112(b)	n/a	n/a	n/a
Furnace Controls	112(c), 115(a)	n/a	n/a	n/a
Natural Ventilation	121(b)	Yes	Yes	Yes
Minimum Ventilation	121(b)	332 cfm	255 cfm	357 cfm
VAV Minimum Position Control	121(c)	No	No	No
Demand Control Ventilation	121(c)	No	No	No
Time Control	121(c), 122(e)	Programmable Switch	Programmable Switch	Programmable Switch
Setback and Setup Control	122(e)	No Setback Required	No Setback Required	No Setback Required
Outdoor Damper Control	122(f)	Auto	Auto	Auto
Isolation Zones	122(g)	n/a	n/a	n/a
Pipe Insulation	123			
Duct Insulation	124	R-4.2	R-4.2	R-4.2
PRESCRIPTIVE MEASURES				
Calculated Heating Capacity x 1.43 [2]	144 (a & b)	n/a	n/a	n/a
Proposed Heating Capacity [2]	144 (a & b)	25,000 btuh	25,000 btuh	35,000 btuh
Calculated Sensible Cooling Capacity x 1.21[2]	144 (a & b)	n/a	n/a	n/a
Proposed Sensible Cooling Capacity [2]	144 (a & b)	22,568 btuh	24,614 btuh	43,349 btuh
Fan Control	144 (c)	Constant Volume	Constant Volume	Constant Volume
DP Sensor Location	144 (c)			
Supply Pressure Reset (DDC only)	144 (c)	Yes	Yes	Yes
Simultaneous Heat/Cool	144 (d)	No	No	No
Economizer	144 (e)	No Economizer	No Economizer	No Economizer
Heating Air Supply Reset	144 (f)	Constant Temp	Constant Temp	Constant Temp
Cooling Air Supply Reset	144 (f)	Constant Temp	Constant Temp	Constant Temp
Duct Sealing for Prescriptive Compliance[3]	144 (k)	No	No	No

1: For each central and single zone air systems (or group of similar units) fill in the reference to sheet number and/or specification section and paragraph number where the required features are documented. If a requirement is not applicable, put "N/A" in the column.

2: Not required for hydronic heating and cooling. Either enter a value here or put in reference ot plans and specificatons per footnote 1.

3: Enter Yes if System is: Constant Volume, Single Zone; Serves < 5,000 sqft; Has > 25% duct in unconditioned space. Duct sealing is required for Prescriptive Compliance, see PERF-1 for performance method duct sealing requirements.

NOTES TO FIELD - For Building Department Use Only

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AIR SYSTEM REQUIREMENTS

Part 1 of 2 **MECH-2-C**

PROJECT NAME	DATE
Mid Rise Res	

SYSTEM FEATURES

		AIR SYSTEMS, Central or Single Zone		
ITEM OR SYSTEM TAG(S)		4 - 6th Flrs Unit S	5 - 6th Flrs Unit R	6 - 6th Flrs Unit Q
Number of Systems		1	1	1
MANDATORY MEASURES	**T-24 Section**	**Reference on Plans or Specification** [1]		
Heating Equipment Efficiency	112(a)	n/a	n/a	n/a
Cooling Equipment Efficiency	112(a)	13.0 SEER / 11.0 EER	13.0 SEER / 11.0 EER	13.0 SEER / 11.0 EER
Heat Pump Thermostat	112(b)	n/a	n/a	n/a
Furnace Controls	112(c), 115(a)	n/a	n/a	n/a
Natural Ventilation	121(b)	Yes	Yes	Yes
Minimum Ventilation	121(b)	348 cfm	263 cfm	317 cfm
VAV Minimum Position Control	121(c)	No	No	No
Demand Control Ventilation	121(c)	No	No	No
Time Control	121(c), 122(e)	Programmable Switch	Programmable Switch	Programmable Switch
Setback and Setup Control	122(e)	No Setback Required	No Setback Required	No Setback Required
Outdoor Damper Control	122(f)	Auto	Auto	Auto
Isolation Zones	122(g)	n/a	n/a	n/a
Pipe Insulation	123			
Duct Insulation	124	R-4.2	R-4.2	R-4.2
PRESCRIPTIVE MEASURES				
Calculated Heating Capacity x 1.43 [2]	144 (a & b)	n/a	n/a	n/a
Proposed Heating Capacity [2]	144 (a & b)	35,000 btuh	25,000 btuh	25,000 btuh
Calculated Sensible Cooling Capacity x 1.21[2]	144 (a & b)	n/a	n/a	n/a
Proposed Sensible Cooling Capacity [2]	144 (a & b)	43,340 btuh	22,294 btuh	25,007 btuh
Fan Control	144 (c)	Constant Volume	Constant Volume	Constant Volume
DP Sensor Location	144 (c)			
Supply Pressure Reset (DDC only)	144 (c)	Yes	Yes	Yes
Simultaneous Heat/Cool	144 (d)	No	No	No
Economizer	144 (e)	No Economizer	No Economizer	No Economizer
Heating Air Supply Reset	144 (f)	Constant Temp	Constant Temp	Constant Temp
Cooling Air Supply Reset	144 (f)	Constant Temp	Constant Temp	Constant Temp
Duct Sealing for Prescriptive Compliance[3]	144 (k)	No	No	No

1: For each central and single zone air systems (or group of similar units) fill in the reference to sheet number and/or specification section and paragraph number where the required features are documented. If a requirement is not applicable, put "N/A" in the column.

2: Not required for hydronic heating and cooling. Either enter a value here or put in reference ot plans and specificatons per footnote 1.

3: Enter Yes if System is: Constant Volume, Single Zone; Serves < 5,000 sqft; Has > 25% duct in unconditioned space. Duct sealing is required for Prescriptive Compliance, see PERF-1 for performance method duct sealing requirements.

NOTES TO FIELD - For Building Department Use Only

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AIR SYSTEM REQUIREMENTS

Part 1 of 2 **MECH-2-C**

PROJECT NAME	DATE
Mid Rise Res	

SYSTEM FEATURES

		AIR SYSTEMS, Central or Single Zone		
ITEM OR SYSTEM TAG(S)		7 - 2-5th Floors Unit F	8 - 2-5th Flrs Units B-E	9 - 2-5th Floors Unit A
Number of Systems		4	16	4
MANDATORY MEASURES	**T-24 Section**	**Reference on Plans or Specification** [1]		
Heating Equipment Efficiency	112(a)	n/a	n/a	n/a
Cooling Equipment Efficiency	112(a)	13.0 SEER / 11.0 EER	13.0 SEER / 11.0 EER	13.0 SEER / 11.0 EER
Heat Pump Thermostat	112(b)	n/a	n/a	n/a
Furnace Controls	112(c), 115(a)	n/a	n/a	n/a
Natural Ventilation	121(b)	Yes	Yes	Yes
Minimum Ventilation	121(b)	688 cfm	1706 cfm	709 cfm
VAV Minimum Position Control	121(c)	No	No	No
Demand Control Ventilation	121(c)	No	No	No
Time Control	121(c), 122(e)	Programmable Switch	Programmable Switch	Programmable Switch
Setback and Setup Control	122(e)	No Setback Required	No Setback Required	No Setback Required
Outdoor Damper Control	122(f)	Auto	Auto	Auto
Isolation Zones	122(g)	n/a	n/a	n/a
Pipe Insulation	123			
Duct Insulation	124	R-4.2	R-4.2	R-4.2
PRESCRIPTIVE MEASURES				
Calculated Heating Capacity x 1.43 [2]	144 (a & b)	n/a	n/a	n/a
Proposed Heating Capacity [2]	144 (a & b)	100,000 btuh	400,000 btuh	100,000 btuh
Calculated Sensible Cooling Capacity x 1.21[2]	144 (a & b)	n/a	n/a	n/a
Proposed Sensible Cooling Capacity [2]	144 (a & b)	88,505 btuh	355,609 btuh	100,582 btuh
Fan Control	144 (c)	Constant Volume	Constant Volume	Constant Volume
DP Sensor Location	144 (c)			
Supply Pressure Reset (DDC only)	144 (c)	Yes	Yes	Yes
Simultaneous Heat/Cool	144 (d)	No	No	No
Economizer	144 (e)	No Economizer	No Economizer	No Economizer
Heating Air Supply Reset	144 (f)	Constant Temp	Constant Temp	Constant Temp
Cooling Air Supply Reset	144 (f)	Constant Temp	Constant Temp	Constant Temp
Duct Sealing for Prescriptive Compliance[3]	144 (k)	No	No	No

1: For each central and single zone air systems (or group of similar units) fill in the reference to sheet number and/or specification section and paragraph number where the required features are documented. If a requirement is not applicable, put "N/A" in the column.

2: Not required for hydronic heating and cooling. Either enter a value here or put in reference ot plans and specificatons per footnote 1.

3: Enter Yes if System is: Constant Volume, Single Zone; Serves < 5,000 sqft; Has > 25% duct in unconditioned space. Duct sealing is required for Prescriptive Compliance, see PERF-1 for performance method duct sealing requirements.

NOTES TO FIELD - For Building Department Use Only

Run Initiation Time: 08/12/09 14:56:21 Run Code: 1250114181

AIR SYSTEM REQUIREMENTS

Part 1 of 2 **MECH-2-C**

PROJECT NAME	DATE
Mid Rise Res	

SYSTEM FEATURES

		AIR SYSTEMS, Central or Single Zone		
ITEM OR SYSTEM TAG(S)		10 - 2-5th Floors Unit K	11 - 2-5th Flrs Units H-J	12 - 2-5th Floors Unit G
Number of Systems		4	12	4
MANDATORY MEASURES	**T-24 Section**	**Reference on Plans or Specification** [1]		
Heating Equipment Efficiency	112(a)	n/a	n/a	n/a
Cooling Equipment Efficiency	112(a)	13.0 SEER / 11.0 EER	13.0 SEER / 11.0 EER	13.0 SEER / 11.0 EER
Heat Pump Thermostat	112(b)	n/a	n/a	n/a
Furnace Controls	112(c), 115(a)	n/a	n/a	n/a
Natural Ventilation	121(b)	Yes	Yes	Yes
Minimum Ventilation	121(b)	769 cfm	1956 cfm	714 cfm
VAV Minimum Position Control	121(c)	No	No	No
Demand Control Ventilation	121(c)	No	No	No
Time Control	121(c), 122(e)	Programmable Switch	Programmable Switch	Programmable Switch
Setback and Setup Control	122(e)	No Setback Required	No Setback Required	No Setback Required
Outdoor Damper Control	122(f)	Auto	Auto	Auto
Isolation Zones	122(g)	n/a	n/a	n/a
Pipe Insulation	123			
Duct Insulation	124	R-4.2	R-4.2	R-4.2
PRESCRIPTIVE MEASURES				
Calculated Heating Capacity x 1.43 [2]	144 (a & b)	n/a	n/a	n/a
Proposed Heating Capacity [2]	144 (a & b)	100,000 btuh	300,000 btuh	100,000 btuh
Calculated Sensible Cooling Capacity x 1.21[2]	144 (a & b)	n/a	n/a	n/a
Proposed Sensible Cooling Capacity [2]	144 (a & b)	88,605 btuh	265,436 btuh	88,502 btuh
Fan Control	144 (c)	Constant Volume	Constant Volume	Constant Volume
DP Sensor Location	144 (c)			
Supply Pressure Reset (DDC only)	144 (c)	Yes	Yes	Yes
Simultaneous Heat/Cool	144 (d)	No	No	No
Economizer	144 (e)	No Economizer	No Economizer	No Economizer
Heating Air Supply Reset	144 (f)	Constant Temp	Constant Temp	Constant Temp
Cooling Air Supply Reset	144 (f)	Constant Temp	Constant Temp	Constant Temp
Duct Sealing for Prescriptive Compliance[3]	144 (k)	No	No	No

1: For each central and single zone air systems (or group of similar units) fill in the reference to sheet number and/or specification section and paragraph number where the required features are documented. If a requirement is not applicable, put "N/A" in the column.

2: Not required for hydronic heating and cooling. Either enter a value here or put in reference ot plans and specificatons per footnote 1.

3: Enter Yes if System is: Constant Volume, Single Zone; Serves < 5,000 sqft; Has > 25% duct in unconditioned space. Duct sealing is required for Prescriptive Compliance, see PERF-1 for performance method duct sealing requirements.

NOTES TO FIELD - For Building Department Use Only

Run Initiation Time: 08/12/09 14:56:21 Run Code: 1250114181

AIR SYSTEM REQUIREMENTS

Part 1 of 2 **MECH-2-C**

PROJECT NAME	DATE
Mid Rise Res	

SYSTEM FEATURES

		AIR SYSTEMS, Central or Single Zone		
ITEM OR SYSTEM TAG(S)		14 - Lobby and Other		
Number of Systems		3		
MANDATORY MEASURES	**T-24 Section**	**Reference on Plans or Specification** [1]		
Heating Equipment Efficiency	112(a)	n/a		
Cooling Equipment Efficiency	112(a)	13.0 SEER / 11.0 EER		
Heat Pump Thermostat	112(b)	n/a		
Furnace Controls	112(c), 115(a)	n/a		
Natural Ventilation	121(b)	Yes		
Minimum Ventilation	121(b)	1119 cfm		
VAV Minimum Position Control	121(c)	No		
Demand Control Ventilation	121(c)	No		
Time Control	121(c), 122(e)	Programmable Switch		
Setback and Setup Control	122(e)	No Setback Required		
Outdoor Damper Control	122(f)	Auto		
Isolation Zones	122(g)	n/a		
Pipe Insulation	123			
Duct Insulation	124	R-4.2		
PRESCRIPTIVE MEASURES				
Calculated Heating Capacity x 1.43 [2]	144 (a & b)	n/a		
Proposed Heating Capacity [2]	144 (a & b)	75,000 btuh		
Calculated Sensible Cooling Capacity x 1.21 [2]	144 (a & b)	n/a		
Proposed Sensible Cooling Capacity [2]	144 (a & b)	63,427 btuh		
Fan Control	144 (c)	Constant Volume		
DP Sensor Location	144 (c)			
Supply Pressure Reset (DDC only)	144 (c)	Yes		
Simultaneous Heat/Cool	144 (d)	No		
Economizer	144 (e)	No Economizer		
Heating Air Supply Reset	144 (f)	Constant Temp		
Cooling Air Supply Reset	144 (f)	Constant Temp		
Duct Sealing for Prescriptive Compliance [3]	144 (k)	No		

1: For each central and single zone air systems (or group of similar units) fill in the reference to sheet number and/or specification section and paragraph number where the required features are documented. If a requirement is not applicable, put "N/A" in the column.

2: Not required for hydronic heating and cooling. Either enter a value here or put in reference ot plans and specificatons per footnote 1.

3: Enter Yes if System is: Constant Volume, Single Zone; Serves < 5,000 sqft; Has > 25% duct in unconditioned space. Duct sealing is required for Prescriptive Compliance, see PERF-1 for performance method duct sealing requirements.

NOTES TO FIELD - For Building Department Use Only

Run Initiation Time: 08/12/09 14:56:21 Run Code: 1250114181

WATER SIDE SYSTEM REQUIREMENTS Part 2 of 2 MECH-2-C

PROJECT NAME	DATE
Mid Rise Res	

SYSTEM FEATURES

		[2] WATER SIDE SYSTEMS: Chillers, Towers, Boilers, Hydronic Loops		
ITEM OR SYSTEM TAG(S)				
Number of Systems				
MANDATORY MEASURES	**T-24 Section**	**Reference on Plans or Specification[1]**		
Equipment Efficiency	112(a)			
Pipe Insulation	123			
PRESCRIPTIVE MEASURES				
Calculated Capacity	144 (a & b)			
Proposed Capacity	144 (a & b)			
Tower Fan Controls	144 (h)			
Tower Flow Controls	144 (h)			
Variable Flow System Design	144 (j)			
Chiller and Boiler Isolation	144 (j)			
CHW and HHW Reset Controls	144 (j)			
WLHP Isolation Valves	144 (j)			
VSD on CHW, CW & WLHP Pumps > 5 HP	144 (j)			
DP Sensor Location	144 (j)			

1: For each chiller, cooling tower, boiler, and hydronic loop (or groups of similar equipment) fill in the reference to sheet number and/or specification section and paragraph number where the required features are documented. If a requirement is not applicable, put "N/A" in the column.

2: Water side systems include wet side system using other liquids such as glycol or brine.

		Service Hot Water, Pool Heating		
ITEM OR SYSTEM TAG(S)		DHW Heater		
Number of Systems		50		
MANDATORY MEASURES		**Reference on Plans or Specification[1]**		
Water Heater Certification	113 (a)	Takagi T-K2		
Water Heater Efficiency	113 (b)	85%		
Service Water Heating Installation	113 (c)			
Pool and Spa Efficiency and Control	114 (a)	n/a		
Pool and Spa Installation	114 (b)	n/a		
Pool Heater - No Pilot Light	115 (c)	n/a		
Spa Heater - No Pilot Light	115 (d)	n/a		

1: For each water heater, pool heat and domestic water loop (or groups of similar equipment) fill in the reference to sheet number and/or specification section and paragraph number where the required features are documented. If a requirement is not applicable, put "N/A" ins the column.

NOTES TO FIELD - For Building Department Use Only

Run Initiation Time: 08/12/09 14:56:21 Run Code: 1250114181

MECHANICAL VENTILATION MECH-3-C

PROJECT NAME	DATE
Mid Rise Res	

MECHANICAL VENTILATION (Section 121(b)2)

PRESCRIPTIVE REHEAT LIMITATION (Section 144(d))

	AREA BASIS			OCCUPANCY BASIS					VAV MINIMUM				
A	B	C	D	E	F	G	H	I	J	K	L	M	N
ZONE/SYSTEM	Condition Area (SF)	CFM per Square Foot	Min CFM by Area (B x C)	Number of People	CFM per Person	Min CFM by Occupant (E x F)	REQ'D V.A Max of (D or G)	Design Vent. Air CFM	30% of Design Zone Supply CFM	B x 0.4 CFM/sq. ft.	Max of Columns H, J, K or 300 CFM	Design Min. Air Setpoint	Transfer Air
Unit X	2,215	0.15	332				332	332					
1 - 6th Flrs Unit P.1						Total	332	332					
Unit R1-S1	1,700	0.15	255				255	255					
2 - 6th Flr Unit V						Total	255	255					
Unit Q	2,380	0.15	357				357	357					
3 - 6th Flrs Unit U						Total	357	357					
Unit S	2,320	0.15	348				348	348					
4 - 6th Flrs Unit S						Total	348	348					
Unit V-W	1,750	0.15	262				262	263					
5 - 6th Flrs Unit R						Total	262	263					
Unit Q	2,112	0.15	317				317	317					
6 - 6th Flrs Unit Q						Total	317	317					
Unit F	4,588	0.15	688				688	688					
7 - 2-5th Floors Unit F						Total	688	688					
Units B-E	11,376	0.15	1,706				1,706	1,706					
8 - 2-5th Flrs Units B-E						Total	1,706	1,706					
Unit A	4,724	0.15	709				709	709					
9 - 2-5th Floors Unit A						Total	709	709					
Unit K	5,124	0.15	769				769	769					
10 - 2-5th Floors Unit K						Total	769	769					
Units H-J	13,040	0.15	1,956				1,956	1,956					
11 - 2-5th Flrs Units H-J						Total	1,956	1,956					
Unit G	4,760	0.15	714				714	714					
12 - 2-5th Floors Unit G						Total	714	714					
Lobby	1,046	0.15	157				157	1,119					

C	Minimum ventilation rate per Section 121, Table 121-A
E	Based on fixed seat or the greater of the expected number of occupants and 50% of the CBC occupant load for egress purposes for spaces without fixed seating.
H	Required Ventilation Air (REQ'D V.A.) is the larger of the ventilation rates calculated on and AREA or OCCUPANCY BASIS (column D or G).
I	Must be greater than or equal to H, or use Transfer Air (column N) to make up the difference.
J	Design fan supply cfm (Fan CFM) x 30%; or
K	Condition area (ft. sq.) x 04 cfm/ft. sq.; or
L	Maximum of Columns H, J, K, or 300 cfm
M	This must be less than or equal to Column L and greater that or equal to the sum of Columns H + N.
N	Transfer air must be provided where the Required Ventilation Air (column I) is greater than the Design Minimum Air (column M). Where required, transfer air must be greater than or equal to the difference between the Required Ventilation Air (column I) and the Design Minimum Air (column M), column H - M.

MECHANICAL VENTILATION MECH-3-C

PROJECT NAME	DATE
Mid Rise Res	

MECHANICAL VENTILATION (Section 121(b)2)

PRESCRIPTIVE REHEAT LIMITATION (Section 144(d))

	AREA BASIS			OCCUPANCY BASIS					VAV MINIMUM				
A	B	C	D	E	F	G	H	I	J	K	L	M	N
ZONE/SYSTEM	Condition Area (SF)	CFM per Square Foot	Min CFM by Area (B x C)	Number of People	CFM per Person	Min CFM by Occupant (E x F)	REQ'D V.A Max of (D or G)	Design Vent. Air CFM	30% of Design Zone Supply CFM	B x 0.4 CFM/sq. ft.	Max of Columns H, J, K or 300 CFM	Design Min. Air Setpoint	Transfer Air
14 - Lobby and Other						Total	157	1,119					

C	Minimum ventilation rate per Section 121, Table 121-A
E	Based on fixed seat or the greater of the expected number of occupants and 50% of the CBC occupant load for egress purposes for spaces without fixed seating.
H	Required Ventilation Air (REQ'D V.A.) is the larger of the ventilation rates calculated on and AREA or OCCUPANCY BASIS (column D or G).
I	Must be greater than or equal to H, or use Transfer Air (column N) to make up the difference.
J	Design fan supply cfm (Fan CFM) x 30%; or
K	Condition area (ft. sq.) x 04 cfm/ft. sq.; or
L	Maximum of Columns H, J, K, or 300 cfm
M	This must be less than or equal to Column L and greater that or equal to the sum of Columns H + N.
N	Transfer air must be provided where the Required Ventilation Air (column I) is greater than the Design Minimum Air (column M). Where required, transfer air must be greater than or equal to the difference between the Required Ventilation Air (column I) and the Design Minimum Air (column M), column H - M.

MECHANICAL EQUIPMENT DETAILS

Part 1 of 2 **MECH-5-C**

PROJECT NAME Mid Rise Res

DATE

CHILLER AND TOWER SUMMARY

Equipment Name	Equipment Type	Qty.	Efficiency	Tons	PUMPS					
					Tot. Qty	GPM	BHP	Motor Eff.	Drive Eff.	Pump Control

DHW / BOILER SUMMARY

System Name	System Type	Distribution Type	Qty	Rated Input	Vol. (Gals.)	Condition Status	Energy Factor or RE	Standby Loss or Pilot	TANK INSUL. Ext. R-Val.
Takagi T-K2	Instant Gas	No Pipe Insulation	50	185,000	0	New	0.84	0	n/a

MULTI-FAMILY CENTRAL WATER HEATING DETAILS

Hot Water Pump				Hot Water Piping Length (ft)			
Control	#	HP	Type	In Plenum	Outside	Buried	Add 1/2" Insulation

CENTRAL SYSTEM RATINGS

System Name	System Type	Qty	HEATING			COOLING		Condition Status	Economizer Type
			Output	Aux. kW	Eff.	Output	Efficiency		
Carrier 38HDR024---3 w/ FX4C024	Split DX	42	25,000	0.0	n/a	24,400	13.0 SEER / 11.0 EER	New	No Economizer
Carrier 38HDR030---3 w/ FX4C030	Split DX	9	25,000	0.0	n/a	28,200	13.0 SEER / 11.0 EER	New	No Economizer
Carrier 38HDR048---3 w/ FX4C048	Split DX	2	35,000	0.0	n/a	49,300	13.0 SEER / 11.0 EER	New	No Economizer

CENTRAL SYSTEM FAN SUMMARY

System Name	Fan Type	SUPPLY FAN					RETURN FAN			
		Motor Location	CFM	BHP	Motor Eff.	Drive Eff.	CFM	BHP	Motor Eff.	Drive Eff.
Carrier 38HDR024---3 w/ FX4C024	Constant Volume	Blow-Through	792	0.35	66.0%	97.0%	none			
Carrier 38HDR030---3 w/ FX4C030	Constant Volume	Blow-Through	992	0.35	66.0%	97.0%	none			
Carrier 38HDR048---3 w/ FX4C048	Constant Volume	Blow-Through	1,669	0.50	76.0%	97.0%	none			

Run Initiation Time: 08/12/09 14:56:21 Run Code: 1250114181

MECHANICAL EQUIPMENT DETAILS

Part 2 of 2 **MECH-5-C**

PROJECT NAME Mid Rise Res

DATE

ZONE TERMINAL SUMMARY

		TERMINAL UNIT			VAV			TERMINAL FAN			
Zone Name	System Name	System Type	Heating	Cooling	Qty.	Min CFM Ratio	Reheat Coil	CFM	BHP	Motor Eff.	Drive Eff.
Unit X	undefined (1)	VAV Box	0	0	1	100%					
Unit R1-S1	undefined (1)	VAV Box	0	0	1	100%					
Unit Q	undefined (1)	VAV Box	0	0	1	100%					
Unit S	undefined (1)	VAV Box	0	0	1	100%					
Unit V-W	undefined (1)	VAV Box	0	0	1	100%					
Unit Q	undefined (1)	VAV Box	0	0	1	100%					
Unit F	undefined (1)	VAV Box	0	0	4	100%					
Units B-E	undefined (1)	VAV Box	0	0	4	100%					
Unit A	undefined (1)	VAV Box	0	0	4	100%					
Unit K	undefined (1)	VAV Box	0	0	4	100%					
Units H-J	undefined (1)	VAV Box	0	0	4	100%					
Unit G	undefined (1)	VAV Box	0	0	4	100%					

EXHAUST FAN SUMMARY

EXHAUST FAN					
Room Name	Qty.	CFM	BHP	Motor Eff.	Drive Eff.

EXHAUST FAN					
Room Name	Qty.	CFM	BHP	Motor Eff.	Drive Eff.

Run Initiation Time: 08/12/09 14:56:21 **Run Code: 1250114181**

SAVINGS BY DESIGN

UTILITY INCENTIVE WORKSHEET UTIL-1

PROJECT NAME	DATE
Mid Rise Res	

Step 1 ANNUAL TDV ENERGY USE (kBtu/sqft-yr)

ENERGY COMPONENT	Standard	Proposed	Margin
Space Heating	0.15	0.09	0.06
Space Cooling	56.34	39.92	16.42
Indoor Fans	11.26	9.78	1.47
Heat Rejection	1.38	0.00	1.38
Pumps	0.58	0.29	0.29
Domestic Hot Water	16.20	9.54	6.66
Lighting	33.50	33.50	0.00
Receptacle	32.24	32.24	0.00
Process	0.00	0.00	0.00
TOTALS:	**151.64**	**125.36**	**26.28**

Step 2 PERCENT BELOW TITLE 24

Adjusted TDV Energy Use
(Excludes Process Energy)

Standard Design		Proposed Design		Margin
151.64	-	125.36	=	26.28

Margin		Standard Design		% Below Title 24*
26.28	/	151.64	=	**17.3%**

* % Below Title 24 is limited to a maximum of 25% in the incentive rate calculation.

Incentive Eligibility

	Yes	No
Owner Incentive (>=10%):	X	

Conditioned Floor Area = 57,135 **sq. ft.**

Step 3 ANNUAL SITE ENERGY USE

	Standard	Proposed	Margin
Peak Demand (kW)	122.2	79.7	42.5

The values shown here are based upon the results of an EnergyPro Noncompliance energy analysis that incorporates building operating profile information supplied by the user.

ENERGY COMPONENT	Standard		Proposed		Margin	
	Electricity (kWh)	Natural Gas (therms)	Electricity (kWh)	Natural Gas (therms)	Electricity (kWh)	Natural Gas (therms)
Space Heating	0	136	0	0	0	136
Space Cooling	177,609	0	126,249	0	51,360	0
Indoor Fans	30,281	0	26,425	0	3,856	0
Heat Rejection	0	0	0	0	0	0
Pumps	550	0	0	0	550	0
Domestic Hot Water	0	9,198	0	6,787	0	2,411
Lighting	43,770	0	41,859	0	1,911	0
Receptacle	77,729	0	77,729	0	0	0
Process	0	0	0	0	0	0
TOTALS:	329,939	9,334	272,262	6,787	57,677	2,547

SAVINGS BY DESIGN

UTILITY INCENTIVE WORKSHEET UTIL-DT

PROJECT NAME	DATE
Mid Rise Res	

Step 1 ANNUAL TDV ENERGY USE (kBtu/sqft-yr)

ENERGY COMPONENT	Standard	Proposed	Margin
Space Heating	0.15	0.09	0.06
Space Cooling	56.34	39.92	16.42
Indoor Fans	11.26	9.78	1.47
Heat Rejection	1.38	0.00	1.38
Pumps	0.58	0.29	0.29
Domestic Hot Water	16.20	9.54	6.66
Lighting	33.50	33.50	0.00
Receptacle	32.24	32.24	0.00
Process	0.00	0.00	0.00
TOTALS:	**151.64**	**125.36**	**26.28**

Step 2 PERCENT BELOW TITLE 24

Adjusted TDV Energy Use
(Excludes Process Energy)

Standard Design		Proposed Design		Margin
151.64	-	125.36	=	26.28

Margin		Standard Design		% Below Title 24*
26.28	/	151.64	=	**17.3%**

* % Below Title 24 is limited to a maximum of 25% in the incentive rate calculation.

Incentive Eligibility	Yes	No
Design Team Incentive (>=15%):	X	

Conditioned Floor Area = 57,135 **sq. ft.**

Step 3 ANNUAL SITE ENERGY USE

	Standard	Proposed	Margin
Peak Demand (kW)	122.2	79.7	42.5

The values shown here are based upon the results of an EnergyPro Noncompliance energy analysis that incorporates building operating profile information supplied by the user.

ENERGY COMPONENT	Standard		Proposed		Margin	
	Electricity (kWh)	Natural Gas (therms)	Electricity (kWh)	Natural Gas (therms)	Electricity (kWh)	Natural Gas (therms)
Space Heating	0	136	0	0	0	136
Space Cooling	177,609	0	126,249	0	51,360	0
Indoor Fans	30,281	0	26,425	0	3,856	0
Heat Rejection	0	0	0	0	0	0
Pumps	550	0	0	0	550	0
Domestic Hot Water	0	9,198	0	6,787	0	2,411
Lighting	43,770	0	41,859	0	1,911	0
Receptacle	77,729	0	77,729	0	0	0
Process	0	0	0	0	0	0
TOTALS:	329,939	9,334	272,262	6,787	57,677	2,547

ENERGY USE AND DEMAND SUMMARY — UTIL-2

PROJECT NAME	DATE
Mid Rise Res	
PROJECT ADDRESS Los Angeles	Application #
PRINCIPAL DESIGNER / **TELEPHONE**	
DOCUMENTATION AUTHOR / **TELEPHONE**	Checked by/Date

	Energy Use (kWh)				Energy Demand (kW)				
	Total	On Peak	Partial Peak	Off Peak	Maximum	On Peak	Partial Peak	Off Peak	Load Factor
Jan	18,851	0	2,115	16,735	52	0	35	100	49%
Feb	18,106	0	2,107	15,999	57	0	36	109	47%
Mar	20,031	0	2,558	17,472	55	0	38	105	49%
Apr	21,306	0	2,808	18,498	63	0	46	125	47%
May	23,629	0	2,602	21,028	65	0	43	126	49%
Jun	25,267	3,392	5,512	16,363	67	52	66	67	52%
Jul	29,411	3,731	5,898	19,781	73	61	73	72	54%
Aug	29,250	3,951	6,050	19,249	80	60	69	80	49%
Sep	26,834	3,557	5,457	17,820	73	65	73	73	51%
Oct	23,475	2,880	4,408	16,187	69	53	66	68	46%
Nov	18,293	0	2,124	16,170	53	0	37	104	47%
Dec	17,810	0	2,073	15,737	49	0	34	95	49%
Year	**272,263**	**17,511**	**43,711**	**211,041**	**80**	**65**	**73**	**80**	**39%**

	Energy Use	Energy Demand
	therms	kBtu/hr
Jan	91	32
Feb	82	32
Mar	91	32
Apr	88	32
May	91	32
Jun	88	32
Jul	91	32
Aug	91	32
Sep	88	32
Oct	91	32
Nov	88	32
Dec	91	32
Year	**1,073**	**32**

Building Occupancy Type:	
Building Conditioned Floor Area:	57,135 sqft
Climate Zone:	9
Annual Electrical Consumption:	4.8 kWh/sqft-yr
Annual Source Energy Consumption:	107.8 kBtu/sqft-yr

Description:	Carrier 38HDR048---3 w/ FX4C048 Supply Fan	
Size:	0.5 HP	**Start Run Code:**

The values shown here are based upon the results of an EnergyPro Noncompliance energy analysis that incorporates building operating profile information supplied by the user.

SUSTAINABLE COMMUNITIES PROGRAM

INCENTIVE WORKSHEET SCP-1

PROJECT NAME	DATE
Mid Rise Res	

Step 1 ANNUAL TDV ENERGY USE (kBtu/sqft-yr)

ENERGY COMPONENT	Standard	Proposed	Margin
Space Heating	0.15	0.09	0.06
Space Cooling	56.34	39.92	16.42
Indoor Fans	11.26	9.78	1.47
Heat Rejection	1.38	0.00	1.38
Pumps	0.58	0.29	0.29
Domestic Hot Water	16.20	9.54	6.66
Lighting	33.50	33.50	0.00
Receptacle	32.24	32.24	0.00
Process	0.00	0.00	0.00
TOTALS:	**151.64**	**125.36**	**26.28**

Step 2 PERCENT BELOW TITLE 24

Adjusted TDV Energy Use
(Excludes Process Energy)

Standard Design		Proposed Design		Margin
151.64	-	125.36	=	26.28

Margin		Standard Design		% Below Title 24*
26.28	/	151.64	=	**17.3%**

* % Below Title 24 is limited to a maximum of 25% in the incentive rate calculation.

Incentive Eligibility	Yes	No
Owner Incentive (>=10%):	X	

Conditioned Floor Area = 57,135 **sq. ft.**

Step 3 ANNUAL SITE ENERGY USE

	Standard	Proposed	Margin
Peak Demand (kW)	122.2	79.7	42.5

The values shown here are based upon the results of an EnergyPro Noncompliance energy analysis that incorporates building operating profile information supplied by the user.

ENERGY COMPONENT	Standard		Proposed		Margin	
	Electricity (kWh)	Natural Gas (therms)	Electricity (kWh)	Natural Gas (therms)	Electricity (kWh)	Natural Gas (therms)
Space Heating	0	136	0	0	0	136
Space Cooling	177,609	0	126,249	0	51,360	0
Indoor Fans	30,281	0	26,425	0	3,856	0
Heat Rejection	0	0	0	0	0	0
Pumps	550	0	0	0	550	0
Domestic Hot Water	0	9,198	0	6,787	0	2,411
Lighting	43,770	0	41,859	0	1,911	0
Receptacle	77,729	0	77,729	0	0	0
Process	0	0	0	0	0	0
TOTALS:	329,939	9,334	272,262	6,787	57,677	2,547

SUSTAINABLE COMMUNITIES PROGRAM

UTILITY INCENTIVE WORKSHEET SCP-2

PROJECT NAME	DATE
Mid Rise Res	

Step 1 ANNUAL TDV ENERGY USE (kBtu/sqft-yr)

ENERGY COMPONENT	Standard	Proposed	Margin
Space Heating	0.15	0.09	0.06
Space Cooling	56.34	39.92	16.42
Indoor Fans	11.26	9.78	1.47
Heat Rejection	1.38	0.00	1.38
Pumps	0.58	0.29	0.29
Domestic Hot Water	16.20	9.54	6.66
Lighting	33.50	33.50	0.00
Receptacle	32.24	32.24	0.00
Process	0.00	0.00	0.00
TOTALS:	**151.64**	**125.36**	**26.28**

Step 2 PERCENT BELOW TITLE 24

Adjusted TDV Energy Use
(Excludes Process Energy)

Standard Design		Proposed Design		Margin
151.64	-	125.36	=	26.28

Margin		Standard Design		% Below Title 24*
26.28	/	151.64	=	**17.3%**

* % Below Title 24 is limited to a maximum of 25% in the incentive rate calculation.

Incentive Eligibility	Yes	No
Design Team Incentive (>=15%):	X	

Conditioned Floor Area = 57,135 **sq. ft.**

Step 3 ANNUAL SITE ENERGY USE

	Standard	Proposed	Margin
Peak Demand (kW)	122.2	79.7	42.5

The values shown here are based upon the results of an EnergyPro Noncompliance energy analysis that incorporates building operating profile information supplied by the user.

ENERGY COMPONENT	Standard		Proposed		Margin	
	Electricity (kWh)	Natural Gas (therms)	Electricity (kWh)	Natural Gas (therms)	Electricity (kWh)	Natural Gas (therms)
Space Heating	0	136	0	0	0	136
Space Cooling	177,609	0	126,249	0	51,360	0
Indoor Fans	30,281	0	26,425	0	3,856	0
Heat Rejection	0	0	0	0	0	0
Pumps	550	0	0	0	550	0
Domestic Hot Water	0	9,198	0	6,787	0	2,411
Lighting	43,770	0	41,859	0	1,911	0
Receptacle	77,729	0	77,729	0	0	0
Process	0	0	0	0	0	0
TOTALS:	329,939	9,334	272,262	6,787	57,677	2,547

ENERGY USE AND COST SUMMARY — ECON-1

PROJECT NAME	DATE
Mid Rise Res	

Rate: LADWP A-3A — **Fuel Type:** Electricity

	STANDARD			PROPOSED			MARGIN		
	Energy Use (kWh)	Peak Demand (kW)	Cost ($)	Energy Use (kWh)	Peak Demand (kW)	Cost ($)	Energy Use (kWh)	Peak Demand (kW)	Cost ($)
Jan	20,552	56	1,754	18,851	52	1,552	1,702	5	202
Feb	20,200	65	1,799	18,106	57	1,552	2,093	8	247
Mar	22,445	61	1,949	20,031	55	1,662	2,414	6	287
Apr	24,860	75	2,272	21,306	63	1,843	3,554	13	429
May	28,482	83	2,421	23,629	65	1,926	4,853	18	495
Jun	32,114	85	2,930	25,267	67	2,174	6,847	18	756
Jul	39,608	107	3,622	29,411	73	2,490	10,197	34	1,132
Aug	39,192	122	3,570	29,250	80	2,483	9,942	42	1,087
Sep	35,112	113	3,462	26,834	73	2,400	8,278	40	1,062
Oct	28,445	89	2,781	23,475	69	2,086	4,970	20	695
Nov	19,923	58	1,786	18,293	53	1,550	1,629	5	236
Dec	19,007	52	1,650	17,810	49	1,478	1,196	3	172
Year	**329,937**	**122**	**$ 29,997**	**272,263**	**80**	**$ 23,196**	**57,674**	**42**	**$ 6,801**

Rate: SoCal Gas GN-10 — **Fuel Type:** Natural Gas

	STANDARD			PROPOSED			MARGIN		
	Energy Use (therms)	Peak Demand (kBtu/hr)	Cost ($)	Energy Use (therms)	Peak Demand (kBtu/hr)	Cost ($)	Energy Use (therms)	Peak Demand (kBtu/hr)	Cost ($)
Jan	166	138	257	91	32	148	75	107	109
Feb	122	115	192	82	32	135	40	84	57
Mar	130	106	205	91	32	148	39	74	57
Apr	121	75	187	88	32	143	33	44	44
May	123	43	191	91	32	148	32	11	43
Jun	120	43	185	88	32	143	31	11	42
Jul	123	43	191	91	32	148	32	11	43
Aug	123	43	191	91	32	148	32	11	43
Sep	120	43	185	88	32	143	31	11	42
Oct	124	47	191	91	32	148	33	16	43
Nov	134	84	204	88	32	143	46	52	61
Dec	183	188	282	91	32	148	92	156	134
Year	**1,590**	**188**	**$ 2,461**	**1,073**	**32**	**$ 1,742**	**517**	**156**	**$ 719**

Annual Totals	Energy	Demand	Cost	Cost/sqft	Virtual Rate
Electricity	272,263 kWh	80 kW	$ 23,196	$ 0.39 /sqft	$ 0.09 /kWh
Natural Gas	1,073 therms	32 kBtu/hr	$ 1,742	$ 0.03 /sqft	$ 1.62 /therm
		Total	$ 24,938	$ 0.42 /sqft	

The values shown here are based upon the results of an EnergyPro Noncompliance energy analysis that incorporates building operating profile information supplied by the user.

Certificate Of Compliance : Residential (Part 1 of 4) CF-1R

Townhome
Project Title

Date

Project Address

Building Permit #

Documentation Author **Telephone**

Plan Check/Date

EnergyPro CA Climate Zone 09
Compliance Method **Climate Zone**

Field Check/Date

TDV (kBtu/sf-yr)	Standard Design	Facing North	Margin	Facing East	Margin	Facing South	Margin	Facing West	Margin
Space Heating	9.78	4.30	5.48	4.42	5.35	5.30	4.47	4.83	4.95
Space Cooling	19.56	15.14	4.42	17.78	1.78	14.73	4.82	14.27	5.29
Fans	3.59	2.79	0.80	3.26	0.34	2.78	0.81	2.67	0.92
Domestic Hot Water	14.35	8.65	5.69	8.65	5.69	8.65	5.69	8.65	5.69
Pumps	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Totals	47.27	30.88	16.39	34.11	13.16	31.47	15.80	30.42	16.85
Percent better than Standard:			34.7%		27.8%		33.4%		35.7%

BUILDING COMPLIES - HERS VERIFICATION REQUIRED

Building Type: [X] Single Family [ ] Addition [ ] Multi Family [ ] Existing + Add/Alt

Building Front Orientation: All Four Orientations

Fuel Type: Natural Gas

Fenestration:

Area: 408 ft^2 **Avg. U:** 0.32

Ratio: 27.2% **Avg. SHGC:** 0.33

Total Conditioned Floor Area: 1,500 ft^2

Existing Floor Area: n/a ft^2

Raised Floor Area: 0 ft^2

Slab on Grade Area: 300 ft^2

Average Ceiling Height: 9.0 ft

Number of Dwelling Units: 1.00

Number of Stories: 3

BUILDING ZONE INFORMATION

Zone Name	Floor Area	Volume	# of Units	Zone Type	Thermostat Type	Vent Hgt.	Vent Area
HVAC System	1,500	13,500	1.00	Conditioned	Setback	8	n/a

OPAQUE SURFACES

Type	Frame	Area	U-Fac.	Insulation Cav.	Insulation Cont.	Act. Azm.	Act. Tilt	Gains Y	Gains N		JA IV Reference	Location / Comments
Wall	Wood	132	0.065	R-21	R-1.0	180	90	X		New	09-A6	1st Floor
Wall	Wood	150	0.065	R-21	R-1.0	270	90	X		New	09-A6	1st Floor
Wall	Wood	180	0.065	R-21	R-1.0	0	90	X		New	09-A6	1st Floor
Door	None	20	0.500	None	R-0.0	0	90	X		New	28-A4	1st Floor
Wall	Wood	102	0.065	R-21	R-1.0	90	90	X		New	09-A6	1st Floor
Wall	Wood	132	0.065	R-21	R-1.0	180	90	X		New	09-A6	2nd Floor
Wall	Wood	300	0.065	R-21	R-1.0	270	90	X		New	09-A6	2nd Floor
Wall	Wood	152	0.065	R-21	R-1.0	0	90	X		New	09-A6	2nd Floor
Wall	Wood	252	0.065	R-21	R-1.0	90	90	X		New	09-A6	2nd Floor
Wall	Wood	108	0.065	R-21	R-1.0	180	90	X		New	09-A6	3rd Floor
Wall	Wood	300	0.065	R-21	R-1.0	270	90	X		New	09-A6	3rd Floor
Wall	Wood	152	0.065	R-21	R-1.0	0	90	X		New	09-A6	3rd Floor
Wall	Wood	252	0.065	R-21	R-1.0	90	90	X		New	09-A6	3rd Floor
Roof	Wood	650	0.032	R-30	R-0.0	180	0	X		New	01-A17	3rd Floor

Certificate Of Compliance : Residential (Part 2 of 4) CF-1R

Townhome
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FENESTRATION SURFACES

#	Type			Area	U-Factor[1]		SHGC[2]		True Azm.	Tilt	Cond. Stat.	Glazing Type	Location/ Comments
1	Window	Rear	(S)	48.0	0.318	NFRC	0.32	NFRC	180	90	New	Great	1st Floor
2	Window	Left	(E)	48.0	0.318	NFRC	0.32	NFRC	90	90	New	Great	1st Floor
3	Window	Rear	(S)	48.0	0.318	NFRC	0.32	NFRC	180	90	New	Great	2nd Floor
4	Window	Front	(N)	48.0	0.318	NFRC	0.32	NFRC	0	90	New	Great	2nd Floor
5	Window	Left	(E)	48.0	0.318	NFRC	0.32	NFRC	90	90	New	Great	2nd Floor
6	Window	Rear	(S)	72.0	0.318	NFRC	0.32	NFRC	180	90	New	Great	3rd Floor
7	Window	Front	(N)	48.0	0.318	NFRC	0.32	NFRC	0	90	New	Great	3rd Floor
8	Window	Left	(E)	48.0	0.318	NFRC	0.32	NFRC	90	90	New	Great	3rd Floor

1. Indicate source either from NFRC or Table 116A. 2. Indicate source either from NFRC or Table 116B.

INTERIOR AND EXTERIOR SHADING

#	Exterior Shade Type	SHGC	Window Hgt.	Window Wd.	Overhang Len.	Overhang Hgt.	Overhang LExt.	Overhang RExt.	Left Fin Dist.	Left Fin Len.	Left Fin Hgt.	Right Fin Dist.	Right Fin Len.	Right Fin Hgt.
1	Bug Screen	0.76	6.0	4.0	2.0	0.1	2.0	2.0						
2	Bug Screen	0.76												
3	Bug Screen	0.76	6.0	4.0	2.0	0.1	2.0	2.0						
4	Bug Screen	0.76												
5	Bug Screen	0.76												
6	Bug Screen	0.76	6.0	4.0	2.0	0.1	2.0	2.0						
7	Bug Screen	0.76												
8	Bug Screen	0.76												

THERMAL MASS FOR HIGH MASS DESIGN

Type	Area (sf)	Thick. (in.)	Heat Cap.	Cond.	Inside R-Val.	JA IV Reference	Condition Status	Location/ Comments

PERIMETER LOSSES

Type	Length	R-Val.	Insulation Location	JA IV Reference	Condition Status	Location/ Comments
Slab Perimeter	70	None	No Insulation	26-A1	New	1st Floor

Certificate Of Compliance : Residential (Part 3 of 4) CF-1R

Townhome
Project Title

Date

HVAC SYSTEMS

Location	Heating Type	Minimum Eff	Cooling Type	Minimum Eff	Condition Status	Thermostat Type
HVAC System	Central Furnace	80% AFUE	Split Air Conditioner	13.0 SEER	New	Setback

HVAC DISTRIBUTION

Location	Heating	Cooling	Duct Location	Duct R-Value	Condition Status	Ducts Tested?
HVAC System	Ducted	Ducted	Attic	4.2	New	Yes

Hydronic Piping System Name	Pipe Length	Pipe Diameter	Insul. Thick.

WATER HEATING SYSTEMS

System Name	Water Heater Type	Distribution	# in Syst.	Rated Input (Btu/hr)	Tank Cap. (gal)	Condition Status	Energy Factor or RE	Standby Loss (%)	Tank Insul. R-Value Ext.
Takagi T-K2	Instant Gas	No Pipe Insulation	1	185,000	0	New	0.84	0	n/a

Multi-Family Central Water Heating Details

Control	Hot Water Pump #	Hot Water Pump HP	Hot Water Pump Type	Hot Water Piping Length (ft) In Plenum	Hot Water Piping Length (ft) Outside	Hot Water Piping Length (ft) Buried	Add 1/2" Insulation

REMARKS

COMPLIANCE STATEMENT

This certificate of compliance lists the building features and specifications needed to comply with Title 24, Parts 1 and 6 of the California Code of Regulations, and the administrative regulations to implement them. This certificate has been signed by the individual with overall design responsibility. The undersigned recognizes that compliance using duct design, duct sealing, verification of refrigerant charge and TXVs, insulation installation quality, and building envelope sealing require installer testing and certification and field verification by an approved HERS rater.

Designer or Owner (per Business & Professions Code)

Name:
Title/Firm:
Address:
,
Telephone: Lic. #:

(signature) (date)

Documentation Author

Name:
Title/Firm:
Address:
Telephone:

(signature) (date)

Enforcement Agency

Name:
Title/Firm:
Address:
Telephone:

(signature) (date)

Run Initiation Time: 08/12/09 15:12:15 **Run Code: 1250115135**

Certificate Of Compliance : Residential (Part 4 of 4) CF-1R

Townhome
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Special Features and Modeling Assumptions

The local enforcement agency should pay special attention to the items specified in this checklist. These items require special written justification and documentation, and special verification to be used with the performance approach. The local enforcement agency determines the adequacy of the justification, and may reject a building or design that otherwise complies based on the adequacy of the special justification and documentation submitted.

	Plan	Field
Compliance using the Four Cardinal Orientation approach has been used. Project can be built in any Orientation.		
The Roof "R-30 Roof Attic" includes credit for a Radiant Barrier installed per Section 3.3.3 of the Residential Manual.		

HERS Required Verification

Items in this section require field testing and/or verification by a certified home energy rater under the supervision of a HERS provider using approved testing and/or verification methods.

	Plan	Field
The HVAC System "HVAC System" incorporates HERS verified Duct Leakage. Target leakage is calculated and documented on the CF-4R.		
The Cooling System "Carrier 38TXA03632" includes credit for a 11.2 EER Condenser. A certified HERS rater must field verify the installation of the correct Condenser.		